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**National Highway
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CALSPAN ON-SITE AIR BAG DEPLOYMENT INVESTIGATION
CALSPAN CASE NO. 92-22
VEHICLE - 1991 MERCURY GRAND MARQUIS LS
LOCATION - ██████████, AL
ACCIDENT DATE - ██████████, 1992

Contract No. DTNH22-87-C-27169

Prepared for:

U.S. Department of Transportation
National Highway Traffic Safety Administration
Washington, D.C. 20590

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points are coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

TECHNICAL REPORT STANDARD TITLE PAGE

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15. Supplementary Notes On-site investigation of an air bag deployment crash that resulted in multiple fractures of the driver's right forearm.			
16. Abstract This investigation focused on an intersection crash that involved a 1991 Mercury Grand Marquis that was equipped with a driver's side air bag Supplemental Restraint System. The vehicle sustained a 10 o'clock direction of force impact and underwent a velocity change of 24 KPH (15 mph). The driver was a 73-year-old female with a height of 149.9cm (59") and weight of 56.3kg (125 lbs.). She was wearing the manual 3-point lap and shoulder belt system.			
At impact, the driver was initiating a left turn and her right hand was positioned at the 11 o'clock sector of the wheel with her forearm extending over the air bag module. As the SRS deployed, the upper air bag module cover flap and air bag impacted her right forearm resulting in AIS-3 level fractures of the radius and ulna and a 340° laceration of the forearm. In addition to the forearm injury, the driver also sustained a fractured right olecranon (AIS-2) and a fractured right 5th digit from air bag contact.			
17. Key Words Front-to-side impact configuration Sufficient longitudinal deceleration Air bag deployment Multiple segmented open fractures of the forearm		18. Distribution Statement General Public	
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CALSPAN ON-SITE AIR BAG DEPLOYMENT INVESTIGATION
CALSPAN CASE NO. 92-22
VEHICLE - 1991 MERCURY GRAND MARQUIS LS
LOCATION - ██████████ AL

SUMMARY

This crash occurred at an urban 4-leg intersection in ██████████, AL on ██████████, 1992, during daylight hours. The asphalt road surfaces were dry and the posted speed limit was 48 KPH (30 mph). The involved vehicles were a 1991 Mercury Grand Marquis that was equipped with a driver's air bag Supplemental Restraint System and a 1977 Chevrolet Nova, 2 dr. sedan.

The Grand Marquis was owned and driven by a 73-year-old female with a height of 149.9cm (59") and weight of 56.3kg (125 lbs.). She was traveling in a westerly direction on a two-lane local street as she approached the four-leg intersection. The driver stopped for a stop sign and initiated a left turn onto the four lane roadway. A parked vehicle at the southeast corner of the intersection obstructed the driver's view of the approaching northbound Chevrolet Nova. The driver of the 1977 Chevrolet Nova detected the Grand Marquis as it initiated the left turn and braked in an attempt to avoid impact.

The full frontal area of the Chevrolet Nova impacted the left front side area of the Grand Marquis in a L-configuration impact sequence. The Nova sustained 36.8cm (14.5") of maximum crush located at the right corner of the front bumper. Crush values at bumper level were as follows: $C_1 = 7.6\text{cm (3.0")}$, $C_2 = 8.9\text{cm (3.5")}$, $C_3 = 15.9\text{cm (6.25")}$, $C_4 = 22.9\text{cm (9.0")}$, $C_5 = 27.9\text{cm (11.0")}$, $C_6 = 36.9\text{cm (14.5")}$. Direct contact damage on the left side of the Grand Marquis began on the corner of the front bumper 92.1cm (36.25") forward of the left front axle position and extended 184.2cm (72.5") rearward onto the front third area of the left front door. Maximum crush was 30.2cm (11.9") located on the left front fender directly above the axle position. Crush values on the left side of the vehicle were as follows: $C_1 = 6.4\text{cm (2.5")}$, $C_2 = 20.6\text{cm (8.1")}$, $C_3 = 24.6\text{cm (9.7")}$, $C_4 = 27.3\text{cm (10.75")}$, $C_5 = 22.9\text{cm (9.0")}$, $C_6 = 3.2\text{cm (1.25")}$. Resultant directions of force were within the 1 o'clock sector (CDC: 01-FDEW-2) for the Chevrolet Nova and 11 o'clock (CDC: 11-LYEW-3) for the air bag equipped Grand Marquis. Velocity changes were computed by the damage and trajectory mode of the CRASHPC program at 24 KPH (15 mph) for the Grand Marquis with a longitudinal component of -21 KPH (-13 mph) while the Nova underwent a total speed change of 29 KPH (18 mph). As a result of the front-to-side impact sequence, the supplemental driver's air bag system deployed in the Grand Marquis.

SUMMARY (CONT'D.)

The impact rotated the vehicles in opposite directions which resulted in a subsequent sideslap impact involving the left side of the Marquis and the right side area of the Chevrolet Nova. The vehicles traveled approximately 15.2m (50') before coming to rest in a side-by-side orientation at the northwest quadrant of the intersection.

The driver of the Mercury Grand Marquis was in a normal driving position at impact. The vehicle was equipped with a 6-way power seat that was adjusted to a forward position, 10.2cm (4") from full forward. The seat was also set to the full up position with the seat back adjusted to the full forward position. The driver stated that she typically drove the vehicle with the tilt wheel set slightly below the center position. (At the time of our on-site inspection of the vehicle, the column was adjusted to the center position.) The driver was properly wearing the manual 3-point lap and shoulder belt system. Although no loading evidence was visible on the belt system, restraint usage was determined from driver statements and blood on the belt webbing in the vicinity of the latchplate/buckle assembly. The driver stated that she always drove the vehicle with both hands on the steering wheel rim. As she initiated the left turn, her right hand was probably at the 11 o'clock position with her forearm extending across the air bag module.

At impact, the driver's air bag system deployed. The upper module flap contacted the anterior and lateral aspect of her mid right forearm. There was no visible contact evidence (i.e., tissue transfers) on the upper flap. The deploying air bag subsequently contacted the same area of the forearm. As a result of air bag and module flap contact, the driver sustained multiple segmental open fractures of the right radius and ulna, with fractures of both the distal and proximal ulna (AIS-3) and a circumferential degloving laceration involving the skin and subcutaneous tissue down to the muscle layer which involved approximately 340° of the forearm. The contact sequence also fractured the right olecranon (AIS-2). The driver sustained a fracture of the proximal phalanx of the right fifth digit from probable contact with the expanding air bag.

The expanding air bag displaced the driver's right arm up and over her head in a circular pattern. Tissue and blood spatters were noted to the headliner, left B-pillar and siderail areas, and across the full width of the rear seatback. The driver, who is a retired nurse, remained conscious and coherent throughout the event and stated during the Calspan interview that her arm "looked like a piece of frayed sausage." She slid to the center seated position and waited for rescue personnel to arrive on-scene.

SUMMARY (CONT'D.)

The driver was transporting her two small grandchildren, ages 4 and 6, who were seated in the center front and right front seat respectively. They were properly belted by the available restraints and were not injured.

As previously stated, the upper air bag module flap did not yield contact evidence. The flap, which measured 20.3cm (8") in width x 12.4cm (4 7/8") in height x .7cm (9/32") in thickness, opened at the designated tear point and remained attached to the module assembly. The lower air bag module flap also opened at the designated tear point and measured 20.3cm (8") in width x 3.5cm (1 3/8") in height x .7cm (9/32") in thickness. Both flaps were extremely clean and free of tissue and blood deposits.

The air bag was typical in construction and was vented by two 2.5cm (1") ports located on the back side of the bag (away from the driver) at the 2 and 8 o'clock positions. The bag was tethered by four internal tether straps and a 17.8cm (7") octagonal reinforcement sewn to the center of the bag. There were large blood stains at the lower left and right quadrants of the bag. Examination of the bag with a 8X magnifying lens yielded tissue transfers located at the lower right quadrant of the bag. Small tissue deposits were noted 16.5cm (6.5") right of the bag's centerline and 3.8cm (1.5") below the horizontal centerline and 15.2cm (6") right and 18.4cm (7.25") below the referenced horizontal line.

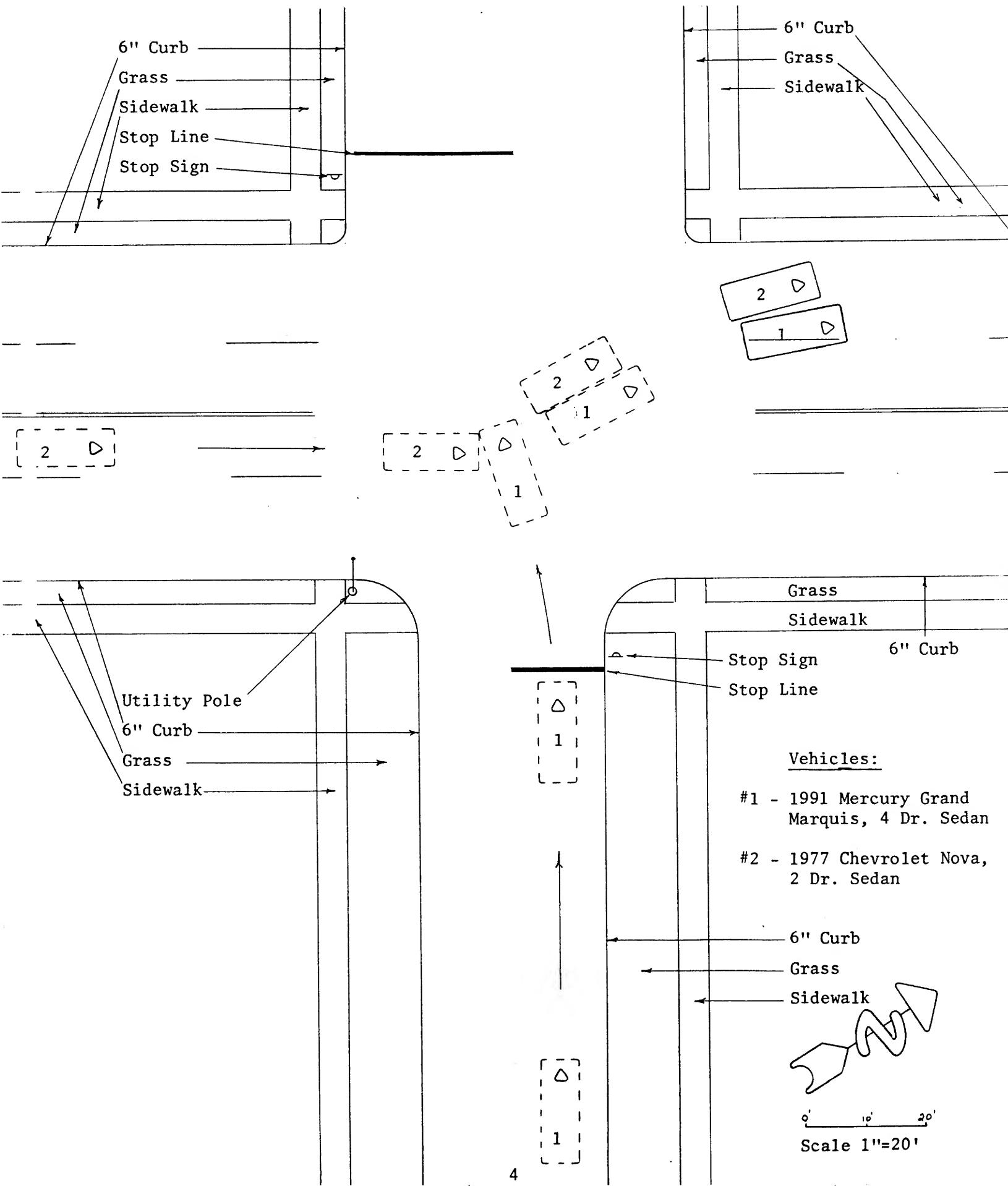
The TRW manufactured air bag module assembly was identified by the following numbers:

[REDACTED]

The air bag and module cover flaps were not damaged and appeared to have deployed in a normal sequence. There was generant residue on the filtering screens of the radial ports of the inflator assembly from the 12-6 o'clock positions, extending in a clockwise direction.

There was no additional interior damage to the vehicle; therefore, the injury to the driver's right forearm was caused by the deployment of the air bag. Both the large upper flap and air bag probably contributed to the severity of the injury.

Accident Schematic
Calspan Case No. 92-22



CALSPAN ON-SITE AIR BAG DEPLOYMENT INVESTIGATION
CALSPAN CASE NO. 92-22
VEHICLE - 1991 MERCURY GRAND MARQUIS
LOCATION - ██████████ AL

CRASH DATA

Location: 4-leg intersection
City/Township: ██████████, AL
Area/Type: Urban/Residential
Crash Date/Time: ██████████ 1992, daylight
hours
Investigating Police Agency: ██████████ Police Department
Accident Type: Car/Car, front-to-side impact configuration
Air Bag Vehicle
Driver Injury Severity: Serious (AIS-3)

AMBIENCE

Viewing Conditions: Daylight
Weather: Clear
Precipitation: None
Road Surface: Dry

HIGHWAY

	<u>Air Bag Vehicle</u>	<u>Vehicle #2</u>
Type:	Local street	Minor arterial
Number of Lanes:	2	4
Width:	9.4m (31')	17.2m (56' 6")
Surface:	Asphalt	Asphalt
Median:	None	None

HIGHWAY (CONT'D.)

Edge:	North edge - 15.2cm (6") barrier curb	East edge - Parking lane and 15.2cm (6" barrier curb
	South edge - 15.2cm (6") barrier curb	West edge - Parking lane and 15.2cm (6") barrier curb
Vertical Alignment:	10.5% grade, positive to the west	3.5% grade, positive to the north
Horizontal Alignment:	Straight	Straight
Estimated Coefficient of Friction:	.75	.75
Traffic Density:	No other traffic	Light

TRAFFIC CONTROLS

Signals:	None	None
Signs:	Stop sign at northeast corner of intersection	None
Markings:	Solid white stop line	Double yellow centerlines, broken white lane lines
Speed Limit:	48 KPH (30 mph)	48 KPH (30 mph)

VEHICLES

	<u>Air Bag Vehicle</u>	<u>Vehicle #2</u>
Description:	1991 Mercury Grand Marquis LS, 4 dr. sedan	1977 Chevrolet Nova, 2 dr. sedan
VIN:	2 M E C M 7 5 F 1 M X (production number deleted)	1X27D7W (production number deleted)
Date of Manufacture:	████████ 1990	Unknown
Color:	Gray	Blue
Odometer:	8 cylinder, 5.0 liter	6 cylinder, 4.1 liter (250 C.I.D.)
Transmission:	4-speed automatic, overdrive, column mounted transmission selector lever	3-speed automatic, column mounted transmission selector lever
Steering:	Power-assisted	Power
Brakes:	Power front-disc, rear drum	Power front-disc
Padding:	Upper and mid-instrument panel, soft edged steering wheel rim and air bag module cover, sun visors, headliner, door panels, door armrests, fold-down center armrests, adjustable head restraints	Upper and mid-instrument panel, soft edged steering wheel rim and spokes (not O.E.M. wheel), door panels, door armrests, adjustable head restraints

VEHICLES (CONT'D) .

M a n u a l Restraints:	3-point lap and shoulder belt systems in the four outboard seated positions, center front and center rear lap belt	3-point lap and shoulder belts in the front outboard seated positions, center front lap belt, 3 rear seat lap belts
Automatic Restraints:	Driver-side air bag Supplemental Restraint System that deployed as a result of the initial impact sequence with vehicle #2	None
Defects:	None	None
Tow Status:	Towed due to vehicle damage	Towed due to vehicle damage

VEHICLE DAMAGE

Exterior:

Primary - The 1991 Mercury Grand Marquis was struck on the left front side area by the full frontal area of vehicle #2. Direct contact damage began at the corner area of the front bumper and extended 184.2cm (72.5") rearward across the left front fender, left front tire and wheel, and onto the left front door. The impact force against the left front tire and wheel fractured the upper ball joint stud at the base of the control arm. Maximum crush was 30.2cm (11.9") located on the left front wheel opening directly above the axle position. Crush values at this level were as follows: $C_1 = 6.4\text{cm (2.5")}$, $C_2 = 20.6\text{cm (8.1")}$, $C_3 = 24.6\text{cm (9.7")}$, $C_4 = 27.3\text{cm (10.75")}$, $C_5 = 22.9\text{cm (9.0")}$, $C_6 = 3.2\text{cm (1.25")}$.

Damaged components included the front bumper, left headlamp and turn signal assembly, left front fender, hood, left front hub cap and ball joint, left A-pillar, and left front door. The displacement of the A-pillar cracked the vehicle's windshield and displaced the left roof side rail vertically upward from the A- to the B-pillar.

VEHICLES (CONT'D.)

Secondary - The left side area of the Grand Marquis impacted the right side of vehicle #2 in a subsequent sideslap configuration. Direct contact damage began at the mid portion of the left front door, 188cm (74") forward of the left rear axle, and extended 308cm (121.25") rearward onto the left taillamp lens. The damage consisted of superficial dents and paint transfers that extended across both left doors and the quarter panel. Maximum crush was 2.5cm (1") at various points on the left front door. There was a 1.25cm (0.5") dent at the rub strip on the left rear door. The sideslap sequence damaged both left side doors, the quarter panel, and the taillamp lens. There was no induced damage from the secondary collision.

CDC: Primary - 10-LYEW-3
Secondary - 09-LZEW-1

Repair Cost: Total loss

Interior:

The interior of the Mercury Grand Marquis was reduced in size by intrusion of the lower left A-pillar. The initial impact sequence displaced the pillar resulting in 7.6cm (3") of lateral displacement of the pillar, left front door panel, and side panel (forward of A-pillar).

The driver was wearing the manual 3-point lap and shoulder belt system. Although no loading evidence was visible on the belt webbing, blood stains were noted to the shoulder belt webbing in the area of the latchplate. Faint blood and tissue deposits were also visible on the webbing at the D-ring area.

The deploying air bag and upper module cover flap contacted the right forearm of the driver. No contact evidence was visible on the flap, however, tissue fragments were noted to the lower right quadrant of the bag. The bag displaced the driver's right arm up and over her head in a circular motion. Blood and tissue fragments were spattered onto the left upper B-pillar, left side window glass, left side rail, and the headliner. The spatter began of the side rail 20.3cm (8") rearward of the A-pillar and extended laterally 34.3cm (13.5") onto the padded headliners. Tissue and body fluid were also spattered across the full width of the rear seat back. The driver's arm then came to rest on her lap and bled onto the deployed air bag, seat cushion and center front lap belt webbing. Blood stains were also noted to the right seat cushion and occurred after the child occupants were removed from the vehicle, prior to EMT arrival.

The lateral aspect of the driver's left knee contacted the left door armrest, however, no damage occurred to the component. The center and right front occupants did not contact interior components and were not injured.

VEHICLE DAMAGE

Vehicle #2

Exterior:

Primary - The 1977 Chevrolet Nova sustained moderate frontal damage from its impact sequence with the left side of the Grand Marquis. Maximum crush was 36.8cm (14.5") located at the right corner of the front bumper. Direct contact damage was 170.2cm (67") in length and was distributed across the full frontal width of the vehicle. Crush values at bumper level were as follows: $C_1 = 7.6\text{cm (3")}$, $C_2 = 8.9\text{cm (3.5")}$, $C_3 = 15.9\text{cm (6.25")}$, $C_4 = 22.9\text{cm (9.0")}$, $C_5 = 27.9\text{cm (11.0")}$, $C_6 = 36.8\text{cm (14.5")}$.

Components damaged by the frontal impact sequence included the bumper, grille, both headlamp assemblies, hood, both frame rails, radiator support panel, and the left and right front fenders. The frontal structure was displaced laterally to the left, indicative of the 1 o'clock impact force.

Secondary - Following the initial impact, the Chevrolet Nova engaged in a subsequent sideslap collision with the left side of the Grand Marquis. The sideslap produced minor damage to the right side of the Nova, beginning on the right fender 20.3cm (8") forward of the front axle. The damage, which consisted of superficial body deformation and paint transfers, extended 291.5cm (114.75") rearward onto the rear quarter panel, ending 10.2cm (4") forward of the rear axle. Maximum crush was 1.3cm (0.5") located at the leading edge of the right front door. Damaged components were limited to the fender, door, and quarter panel.

CDC: Primary - 01-FDEW-2
 Secondary - 03-RDEW-1

Repair Cost: Total loss

VEHICLE DAMAGE (CONT'D)

Vehicle #2

Interior:

The Chevrolet Nova was locked at the time of our inspection and there were no keys available; therefore, interior damage documentation was limited to visual observations. The driver did not wear the available 3-point restraint system. He initiated a forward trajectory and loaded the steering assembly and the windshield. His forehead impacted and cracked the laminated windshield 23-28cm (9-11") left of center and 25-33cm (10-13") above the base of the glass. In addition to being cracked, the driver's head contact bowed the glass outward 2.5cm (1"). The driver's chest area loaded and deformed the steering wheel, displacing the left upper quadrant of the rim 7.6-10.2cm (3-4") forward. The vehicle was equipped with a four spoke sport type wheel from a later model GM product. The wheel was not original equipment.

There was no intrusion or damage to interior components from exterior deformation. Both doors appeared to be in operational condition.

SUPPLEMENTAL RESTRAINT SYSTEM

The 1991 Mercury Grand Marquis was equipped with a driver's side air bag Supplemental Restraint System (SRS) that deployed as a result of the front-to-side impact sequence with vehicle #2. The system consisted of three front mounted crash sensors, a safing sensor and diagnostic unit, a knee bolster, and the air bag module assembly. Two of the crash sensors were mounted to the outboard aspect of the radiator support panel, located behind the low beam headlamp assemblies. The third crash sensor was mounted to a bracket forward of the air conditioning condenser at the center of the vehicle, directly behind the grille. There was no damage to the crash sensors or associated wiring; however, the left sensor was rotated slightly in a clockwise direction due to exterior sheetmetal deformation.

The knee bolster was not damaged or deformed from exterior deformation or driver contact. The safing sensor and diagnostic unit were not damaged. Although the crash occurred 6 months prior to our inspection of the vehicle, the battery had sufficient power to test the post-crash status of the air bag indicator lamp. The lamp was located on the left side of the speedometer cluster, directly above the odometer. With the key turned to the run position, the air bag indicator lamp flashed continuously. This test was repeated several times and yielded the same results.

SUPPLEMENTAL RESTRAINT SYSTEM (CONT'D.)

The air bag module deployed in a typical sequence. The module cover flaps opened at the designated tear points and were hinged at the 12 and 6 o'clock positions of the module assembly. The upper flap measured 20.3cm (8") in width x 12.4cm (4 7/8") in height while the smaller lower flap had respective measurements of 20.3cm (8") x 3.5cm (1 3/8"). Both flaps were 0.7cm (9/32") in thickness. There was no evidence of driver contact on the flaps (i.e., tissue, blood, or fabric transfers). At the time of our inspection, the upper air bag module cover flap was tucked under the upper steering wheel rim. The steering wheel rim deformed the center edge of the upper flap. The crease was not a result of flap contact with the driver's forearm.

The air bag was constructed of a woven nylon fabric with a neoprene liner. The bag, in its deflated state, measured 61cm (24") in diameter and was tethered by four internal straps that extended from a 17.8cm (7") octagonal reinforcement that was sewn to the center of the bag. The air bag was vented by two 2.5cm (1") diameter ports located on the back side of the bag (away from driver) at the 2 and 8 o'clock positions. There was no damage or tears to the deployed air bag. The radial inflator ports of the inflation module were inspected through the bag's venting ports. There were small deposits of generant residue on the filtering screens of the ports from the 12-6 o'clock positions, extending in a clockwise direction.

The face of the air bag had two large blood stains at the lower left and lower right quadrants. The stain at the lower left quadrant of the bag was faint in color and appeared to have been saturated by rain water. The stain on the right side of the bag began at the upper right corner of the tether reinforcement and continued to the lower right portion of the bag. The bag was examined with an 8X magnifying lens which revealed small tissue transfers at the lower right quadrant of the bag. The tissue fragments were located 16.5cm (6.5") right of center and 3.8cm (1.5") below the horizontal centerline and 15.2cm (6") right and 18.4cm (7.25") below the referenced centerline.

The air bag module assembly was manufactured by TRW and was identified by the following numbers:

A large, horizontal black redaction mark consisting of three thick, irregular horizontal strokes, centered on the page below the manufacturer's identification text.

VEHICLE VELOCITY ESTIMATES

	<u>Air Bag Vehicle</u>	<u>Vehicle #2</u>
Travel Speed:	Accelerating from a stopped position	56 KPH (35 mph), Driver estimate
Total ΔV :	24 KPH (15 mph)	29 KPH (18 mph)
Longitudinal ΔV :	-21 KPH (-13 mph)	-27 KPH (-17 mph)
Lateral ΔV :	12 KPH (8 mph)	-10 KPH (-6 mph)
Energy Absorption:	50324 joules (37112 ft.lbs.)	49927 joules (36819 ft.lbs.)

The above velocity changes were computed by the damage algorithm of the CRASHPC program.

COLLISION SEQUENCE

Pre-Crash: The driver of the air bag equipped Mercury Grand Marquis was transporting her grandchildren to her residence and was traveling in a westerly direction on a two lane city street. The street had a positive grade of 10.5% and a posted speed limit of 48 KPH (30 mph). The driver was decelerating as she ascended the grade on her approach to a four-leg intersection. East/westbound traffic flow through the intersection was controlled by stop signs. The driver stopped at the mouth of the intersection to check for north and southbound traffic. There were several parked vehicles along the east curbline of the intersecting roadway which obstructed the driver's view of northbound traffic.

COLLISION SEQUENCE (CONT'D.)

Vehicle #2 was traveling in a northerly direction on the inboard travel lane at a driver estimated speed of 56 KPH (35 mph) as he approached the intersection. The driver of the Grand Marquis failed to detect the approaching vehicle and accelerated into the intersection and initiated a left turn across vehicle #2's path of travel. The driver of vehicle #2 noted the left turning vehicle as it emerged from in front of the parked vehicle and entered his path of travel. He subsequently braked (no lockup) in an attempt to avoid the collision.

Crash:

The full frontal area of vehicle #2 impacted the left front side area of the Mercury Grand Marquis in an L-configuration crash sequence. Resultant directions of force were within the 1 o'clock sector for the Chevrolet Nova and 10 o'clock for the struck Grand Marquis. As the vehicles crushed to maximum engagement, the Nova underwent a total velocity change of 29 KPH (18 mph) while the Grand Marquis underwent a speed change of 24 KPH (15 mph). The longitudinal component of the Marquis's speed change was -21 KPH (-13 mph) which was sufficient to deploy the vehicle's SRS.

The Grand Marquis was impacted forward of its center of gravity (CG) and as a result, the vehicle was rotated in a clockwise direction. The Chevrolet Nova was deflected in a counterclockwise direction as its CG continued in a northerly direction. The vehicles subsequently impacted in a minor sideslap configuration which involved the right side of the Nova against the left side of the Grand Marquis. Resultant directions of force for the sideslap were 3 o'clock for the Nova and 9 o'clock for the Grand Marquis.

The vehicles separated following the sideslap sequence and continued on parallel paths to final rest. The Grand Marquis traveled approximately 14.6m

COLLISION SEQUENCE (CONT'D.)

(48') from the initial point of impact (POI) to final rest. The Chevrolet Nova traveled approximately 17.7m (58') from its initial impact position to final rest.

Post-Crash:

Final Rest -

The Mercury Grand Marquis came to rest straddling the center lane lines of the southbound travel lanes at the northwest quadrant of the intersection. At rest, the vehicle was facing in a northerly direction and was slightly diagonal to the southbound lanes. The Chevrolet Nova came to rest adjacent to the left side of the Grand Marquis. At rest, the Nova was facing in a northerly direction and was blocking the outboard southbound travel lane.

Driver/
Occupant
Activities -

The driver of the Mercury Grand Marquis remained conscious and fully alert during the crash sequence. As her vehicle came to rest, she detected a gaseous odor within the vehicle and noted a smoke-like substance which contained dark particles. She immediately associated the odor and smoke with the air bag as she observed the deflated bag protruding from the steering column.

The driver's 4-year-old grandson was seated in the center front position of the vehicle. He unfastened the manual lap belt and crawled over the front seatback in an attempt to exit the vehicle. His 6-year-old sister remained seated in the right front position.

A neighbor to the crash scene opened the right front door and assisted the child occupants from the vehicle. The driver of the Grand Marquis unfastened her 3-point manual belt system with her left hand and slid to the center position of the front seat where she waited for rescue personnel to arrive on-scene.

Post - Crash
(Cont'd.)

Driver/Occupant
Activities -

The driver of vehicle #2 exited his vehicle and walked over to the Grand Marquis to check on the condition of its occupants. The driver of the Grand Marquis stated that as driver #2 observed her arm injury, he commented that "the air bag did that."

Police
Activities -

The city police department was notified of the crash and dispatched an officer to the scene. The investigating officer arrived on-scene approximately 4 minutes following the crash.

Rescue
Activities -

Two ambulances were dispatched to the crash scene. The EMTs treated the driver's arm injury as she remained in the vehicle. She subsequently slid across the vehicle and exited from the right front door and walked to the stretcher. She was subsequently transported by ambulance to a local hospital where she was admitted for treatment of her injuries.

Driver #2 received first aid at the crash scene and was transported by ambulance to a local hospital where he was treated for a forehead laceration and released.

The daughter of the Mercury's driver was called to the scene of the crash. She transported her children, who were not injured, to the family business and traveled to the hospital to check on the condition of the driver.

Scene
Clearance -

Following the police investigation, both vehicles were towed from the crash scene and normal traffic flow was restored.

HUMAN FACTORS/OCCUPANT DATA

Air Bag Vehicle

Driver: 73 year old female

Height: 149.9cm (59")

Weight: 56.3kg (125 lbs.)

Occupation: Retired

Manual Restraint System Usage: 3-point lap and shoulder belt system

Usage Source: Driver interview, vehicle inspection

Eyewear: Plastic framed prescription eyeglasses, remained on driver's face and were not damaged

Vehicle Familiarity: 20 months

Route Familiarity: Daily

Trip Plan: Returning to residence

Manner of Leaving Scene: Ambulance

Type of Medical Treatment: Admitted to a local hospital for 13 days for treatment of her injuries

DRIVER INJURIES

<u>Injury</u>	<u>Severity (OIC/AIS)</u>	<u>Source</u>
Multiple segmental open fractures of the right radius and ulna, with fractures of both the distal and proximal ulna	Serious (RRFS-3)	Upper air bag module cover flap/air bag
Circumferential degloving laceration involving the skin and subcutaneous tissue down to the muscle layer involving approximately 340° of the right forearm	Moderate (RRVI-2)	Upper air bag module cover flap/air bag (open fractures contributed to size of laceration)
Fracture of the right olecranon	Moderate (ERFS-2)	Upper air bag module cover flap/air bag
Fracture of the proximal phalanx of the right 5th digit	Minor (WRFS-1)	Air bag
Contusion of the lateral aspect of the left knee	Minor (KLCI-1)	Left front door panel

DRIVER KINEMATICS

The driver of the Mercury Grand Marquis was in a normal driving position at impact. The vehicle was equipped with 6-way power front seats that were split in a 50/50 configuration with dual center armrests. The driver had the power seat adjusted to a forward track position 10.2cm (4") from full forward position, and the seatback set to its most forward position. The seat was also adjusted to its most vertical position. The driver stated that she normally drove the vehicle with the tilt column adjusted to a lower position. At the time of our inspection, the column was found adjusted to its center position. She was wearing the manual 3-point lap and shoulder belt system. Belt usage was verified by blood stains on the belt webbing in the area of the latchplate/buckle assembly. If the belt system had not been worn, this area of the webbing would have been retracted against the B-pillar and away from the driver's arm injury. The driver was wearing a short sleeve blouse at the time of the crash.

The driver stated that she normally drove the Grand Marquis with both hands on the steering wheel rim at the 9 and 3 o'clock positions. As she accelerated from the stop sign and initiated the left turn, her right hand turned the wheel in a counterclockwise direction. At impact, her right hand was probably at the 11 o'clock position on the wheel with her forearm extending across the air bag module cover. As the SRS deployed, the upper module flap cover struck the anterior and lateral aspect of the driver's mid right forearm. The flap probably lacerated the forearm and fractured the radius and ulna. The deploying air bag subsequently struck the forearm which contributed to the severity of the injuries. There was no evidence of contact on the module flap cover; however, tissue fragments were visible on the lower right quadrant of the air bag. The module flap/air bag contact produced multiple segmental open fractures of the right radius and ulna with fractures of both the distal and proximal ulna (AIS-3) and a circumferential degloving laceration involving the skin and subcutaneous tissue down to the muscle layer which involved 340° of the right forearm (AIS-2). In addition to the forearm fractures, the driver also sustained a fracture of the right olecranon (AIS-2) from contact with the module cover flap/air bag, and a fracture of the proximal phalanx of the right 5th digit (AIS-1) from probable air bag contact.

The expanding air bag displaced the driver's right forearm up and over her head in a circular motion. Tissue and blood spatters were visible on the headliner, left roof side rail and B-pillar areas and across the full width of the rear seatback.

The driver's left lateral knee area contacted the intruding left door panel area which resulted in a large contusion (AIS-1). There was no evidence of contact to the door panel area. Her face and torso areas probably contacted the fully deployed air bag. The

driver was wearing plastic framed eyeglasses which remained on her face. She was also wearing a wristwatch on her left wrist and a small butterfly pin over her left chest. Both jewelry items remained in place and were not damaged. The driver did not sustain additional injury from her subsequent involvement with the air bag.

ADDITIONAL OCCUPANT DATA

Center Front Passenger:	4 year old male
Height:	106.7cm (42")
Weight:	17.1kg (38 lbs)
Manual Restraint System Usage:	2-point lap belt
Usage Source:	Driver interview data
Type of Medical Treatment:	None, not injured

PASSENGER INJURIES

<u>Injury</u>	<u>Severity (OIC/AIS)</u>	<u>Source</u>
Not injured	N/A	N/A

PASSENGER KINEMATICS

The center front passenger was seated on the right half of the 50/50 split bench seat. He was wearing the manual lap belt. Belt usage was supported by driver statements and blood stains on the latchplate and buckle assembly of the system. The child passenger probably initiated a slight lateral trajectory to his left and loaded the right side of the driver. The lap belt restrained him in his seated position and as a result, he was not injured.

Right Front Passenger: 6 year old female

Height: 111.8cm (44")

Weight: 22.5kg (50 lbs.)

Manual Restraint System
Usage: 3-point lap and shoulder belt

Usage Source: Driver interview

Type of Medical
Treatment: None, not injured

PASSENGER INJURIES

<u>Injury</u>	<u>Severity (OIC/AIS)</u>	<u>Source</u>
Not injured	N/A	N/A

PASSENGER KINEMATICS

The right front passenger was fully restrained by the active 3-point lap and shoulder belt system. Restraint usage was determined from driver statements as no loading evidence was visible on the system. She probably loaded the 3-point belt system during the crash which prevented her from injury.

SELECTED PRINTS



Pre-Crash Trajectory Of the 1991 Mercury Grand Marquis.



Stopped Position Of The Grand Marquis At the
Mouth Of The Intersection.



Driver's View Of The Approach Of Vehicle #2
(No Parked Vehicles At Time Of Scene Inspection).



Grand Marquis' Trajectory To Impact.



Post-Crash Trajectory And Final Rest Area.



Lookback View Of The Grand Marquis' Trajectory.



Pre-Crash Trajectory Of Vehicle #2.



Vehicle #2's Approach To The Crash Site.



Area Of Impact.



Post-Crash Trajectory And Final Rest Position of Vehicle #2.



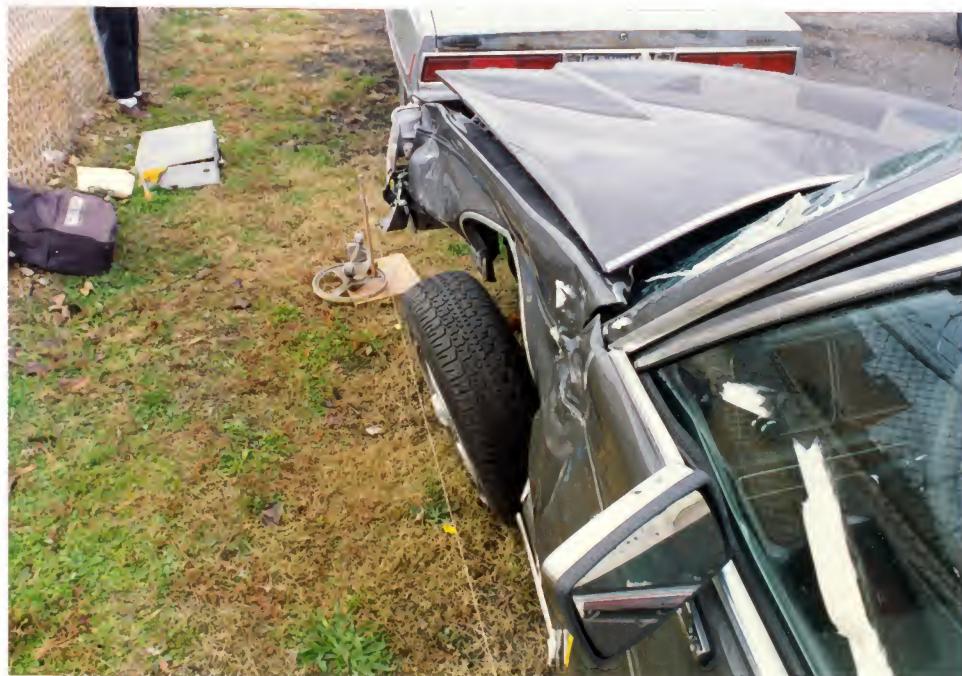
Lookback View Of Vehicle #2's Trajectory.



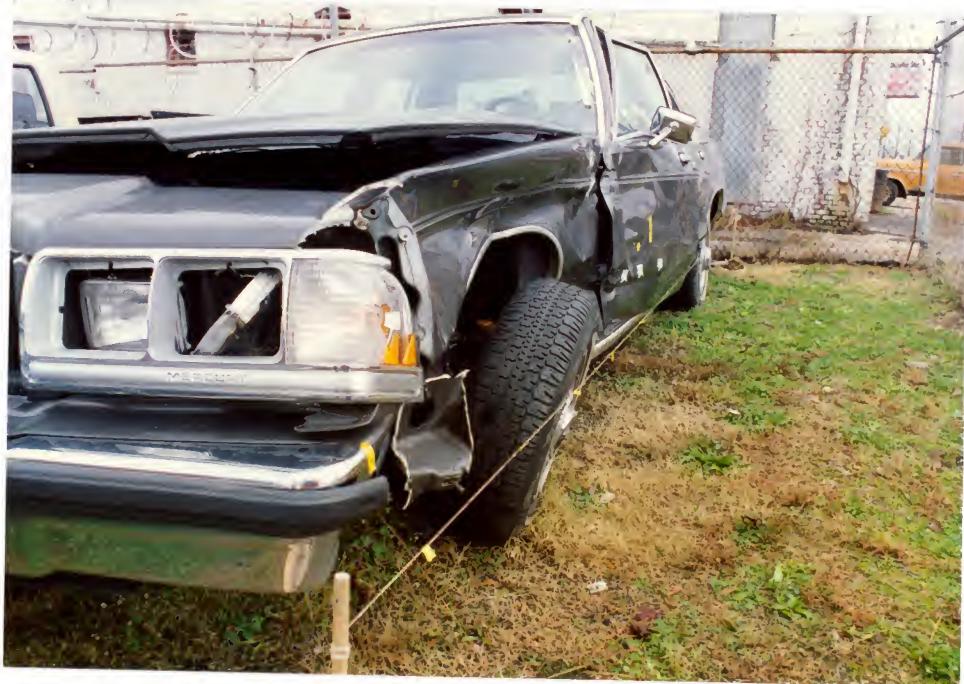
Left Front Three-Quarter Views Of The Mercury Grand Marquis.



Direct Contact Damage That Resulted From The Initial Impact
Sequence With Vehicle #2.



Extent Of Crush From The Primary Impact Sequence.



Frontal Views Showing The Extent Of Crush.



Fractured Left Upper Ball-Joint.



Secondary Sideslap Damage To The Left Side Of The Grand Marquis.



Sideslap Damage On The Quarter Panel And Taillight Lens.



Undamaged Right Side Area.



View Of The Engine Compartment.



Right Front Air Bag Crash Sensor.



Center Front Air Bag Crash Sensor.



Left Front Air Bag Crash Sensor Displaced By Damage.



Vehicle Identification Tag On Left Front Door.



Overall View Of The Deployed Air Bag.



Driver's Seat And Manual 3-Point Belt System.



Deployed Air Bag And Module Cover Flaps.



Upper Air Bag Module Cover Flap.



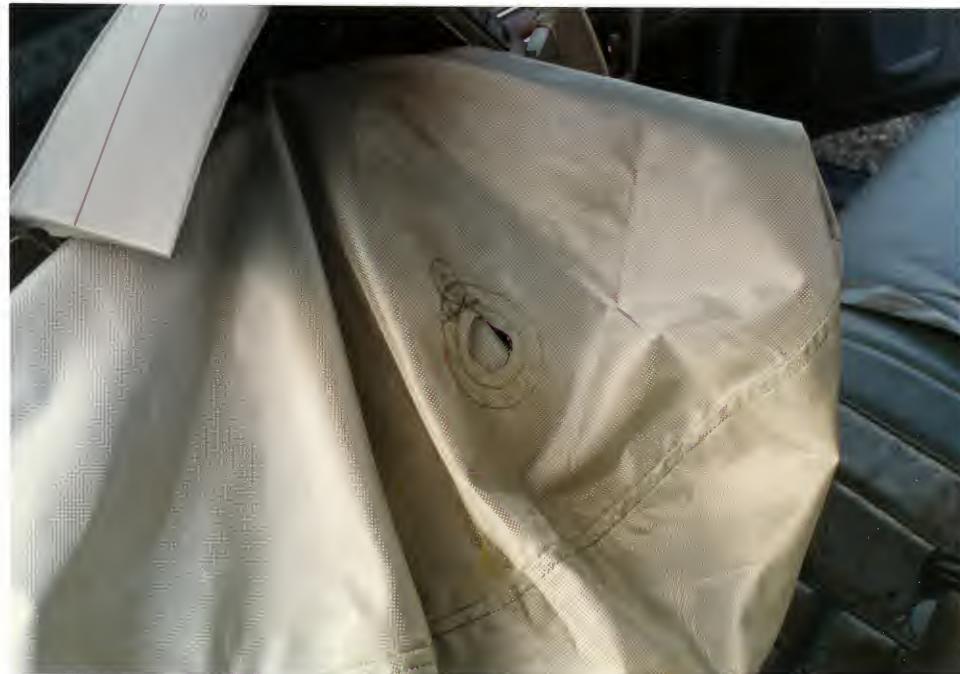
Inside View Of The Upper Module Flap.



Perpendicular Views Of The Upper Air Bag Module Cover Flap.



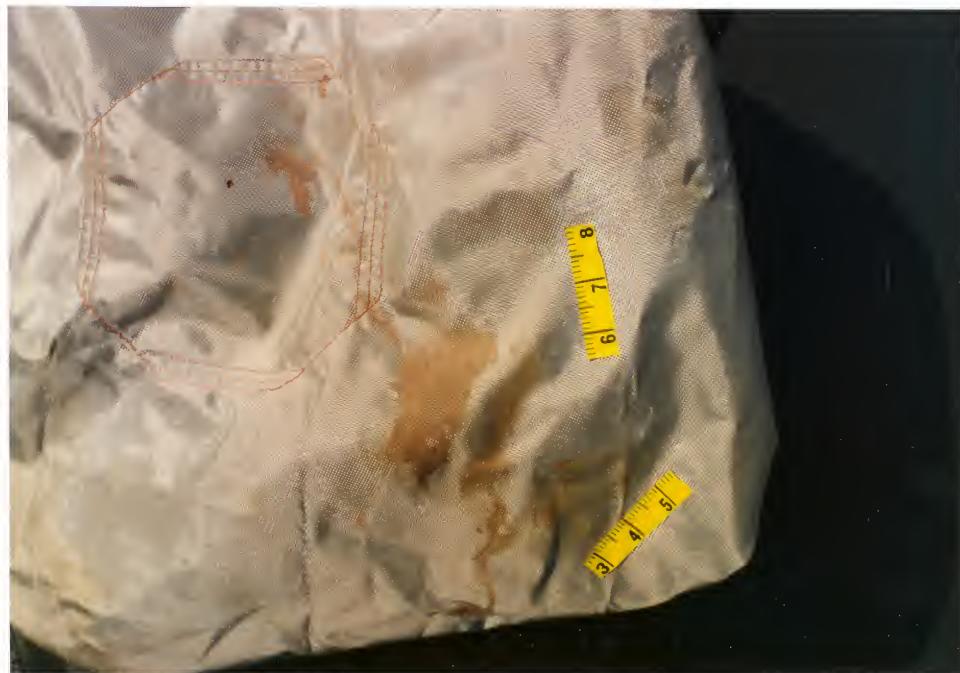
Venting Port At The 8 O'Clock Position.



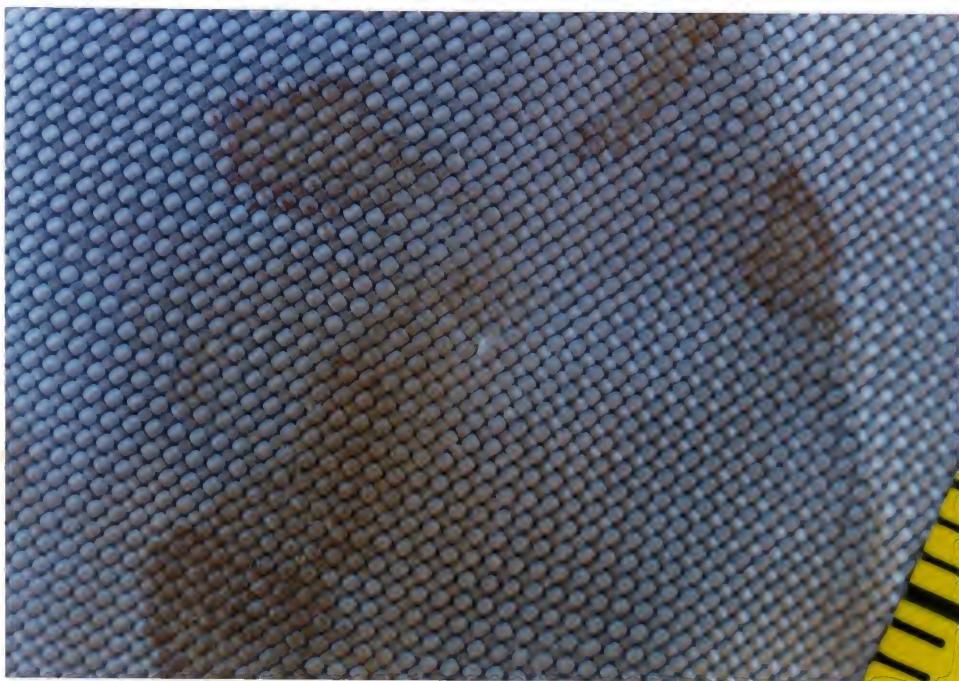
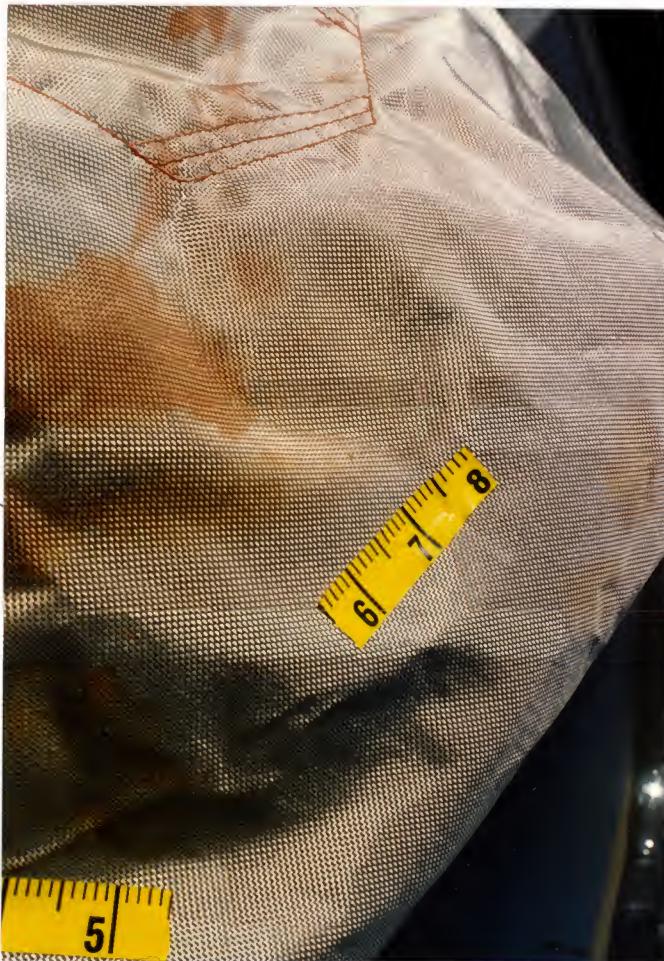
Venting Port At The 2 O'Clock Position.



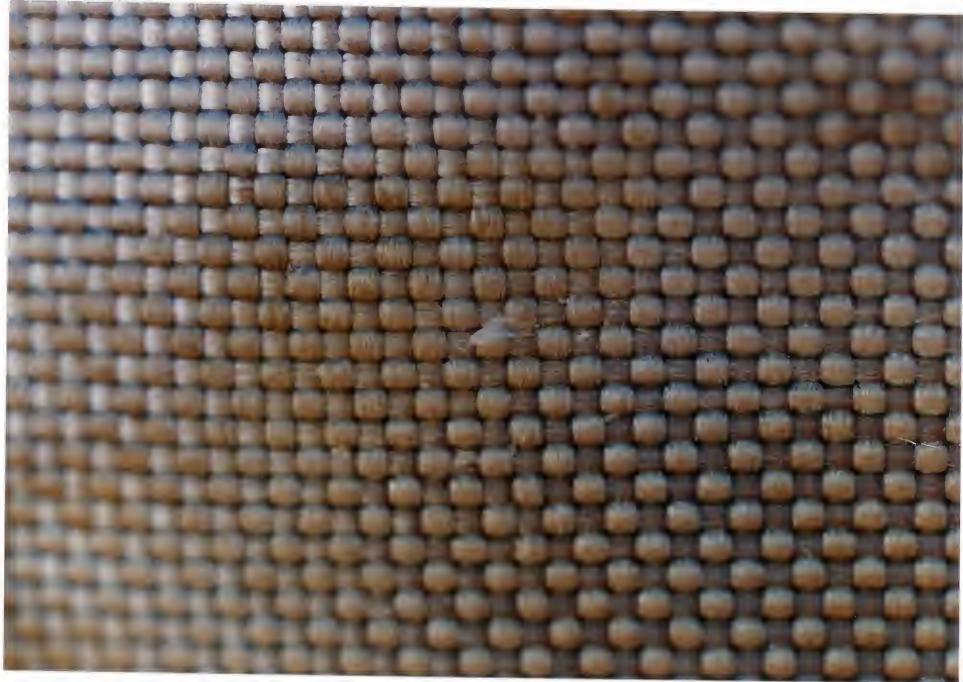
Close-Up View Of The Driver's Air Bag.



Blood And Tissue Deposits At The
Lower Right Quadrant Of The Air Bag.



Tissue Transfer On Air Bag.



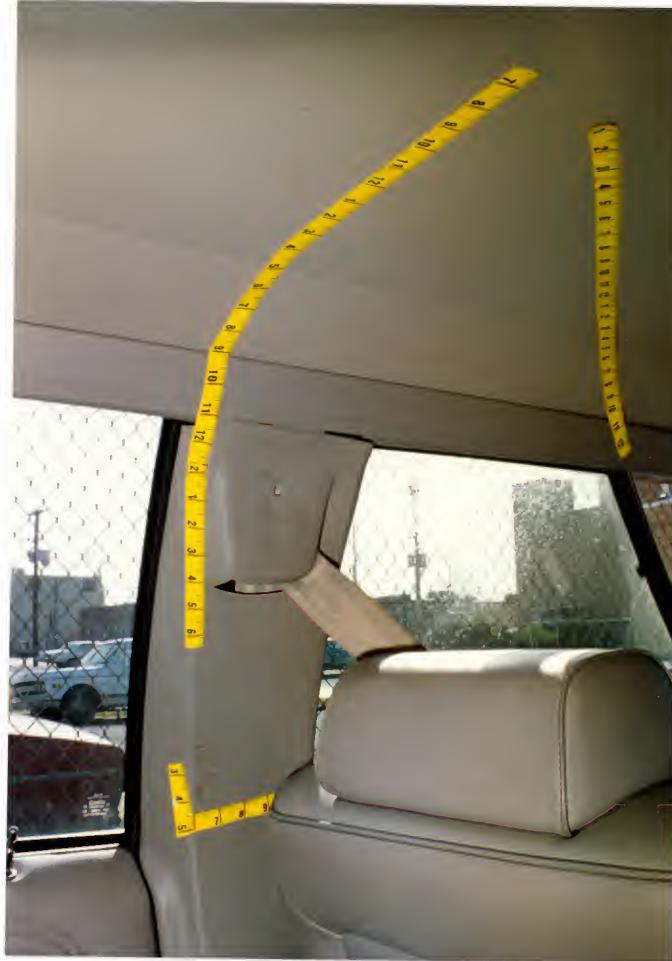
Close-up View Of The Tissue.



Water And Blood Stain At the Lower Left Quadrant Of The Air Bag.



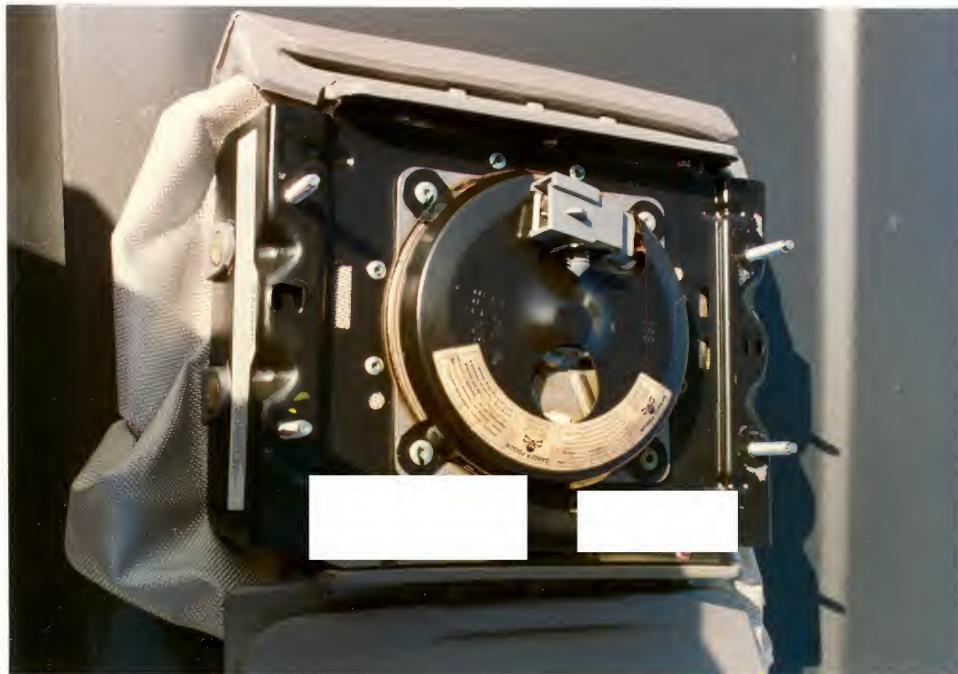
Blood On The Driver's Belt Webbing At The Latchplate Area.



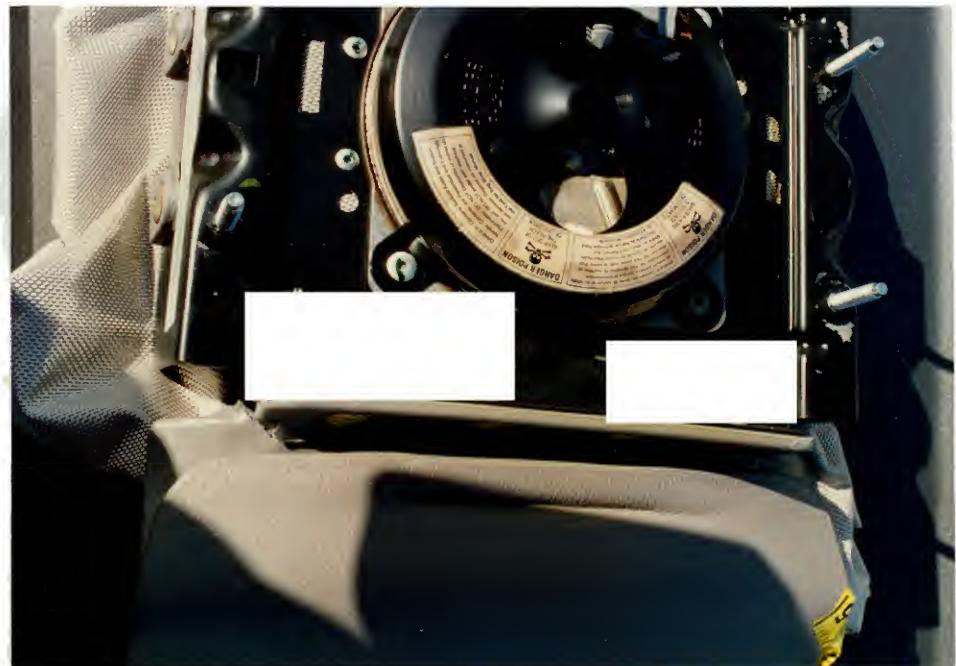
Body Fluid And Tissue Spatter On Left Headliner,
Siderail, And B-Pillar.



Tissue Spatter Across Rear Seat Back.



Back Side Of The Air Bag Module Assembly.



Air Bag Module Identification Numbers.



Left Side View Of The Air Bag Module Cover Flaps.



Right Side View Of The Air Bag Module Cover Flaps.



Close-up View Of The Upper Flap.



Frontal View Of Vehicle #2.



Left Frontal View.



Perpendicular Views Showing The Extent Of Crush.



Right Front Three-Quarter View.



Sideslap Damage To The Right Side Of Vehicle #2.



Driver Head Contact To Windshield.



Driver Loading Damage To Steering Wheel Rim.

SLIDE INDEX

- 1 Accident schematic
- 2 Driver injury mannequin
- 3,4 Pre-crash trajectory of the Mercury Grand Marquis
- 5 POI and FRP of the Grand Marquis
- 6,7 Pre-crash trajectory of vehicle #2
- 8 Lookback view of vehicle #2's path of travel
- 9 Left front three-quarter view of the Grand Marquis
- 10 Longitudinal view showing the extent of crush
- 11,12 Close-up views of the primary impact damage
- 13,14 Additional views of the impact damage
- 15 Sideslap damage to the left side area
- 16 Right front three-quarter view
- 17 Perpendicular view across the radiator support panel
- 18,19 Overall views of the driver's seated area
- 20 3-point manual belt system
- 21 Overall view of the deployed air bag
- 22 Upper air bag module cover flap
- 23,24 Perpendicular views of the module flap
- 25,26 Lower air bag module cover flap
- 27 Blood stains on the deployed air bag
- 28 Venting port at the 2 o'clock position
- 29 Identification numbers on the back side of the module assembly

SLIDE INDEX (CONT'D).

30-32 Tissue/blood spatter on the headliner, B-pillar and side rail

33,34 Tissue spatter on the rear seat back

35,36 Views across the interior from the right door area

37 Driver's adjusted seated position

38 Blood on driver's belt webbing

39-40 Frontal views of vehicle #2

Autodesk Mechanical
Catalog 2014 for SOLIDWORKS



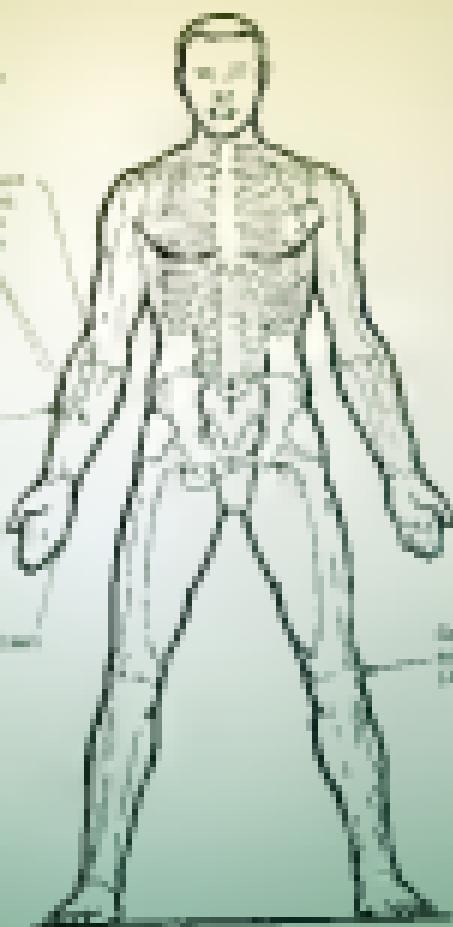
AGI 12
SEK 10
WT 100
HL 10

Fracture of the right
acetabulum with
dislocation of the
right hip joint

The right hip joint is
dislocated. The acetabulum
is fractured and the
head of the femur is
fractured and protruding
from the acetabulum.
There is a large
haematoma around the
right hip joint.

Fracture of the right
acetabulum. There is
dislocation of the right
hip joint. There is a
large haematoma
around the right hip
joint. There is a
large haematoma
around the right hip
joint.

Fracture of the right
acetabulum with
dislocation of the right
hip joint. There is a
large haematoma
around the right hip
joint.



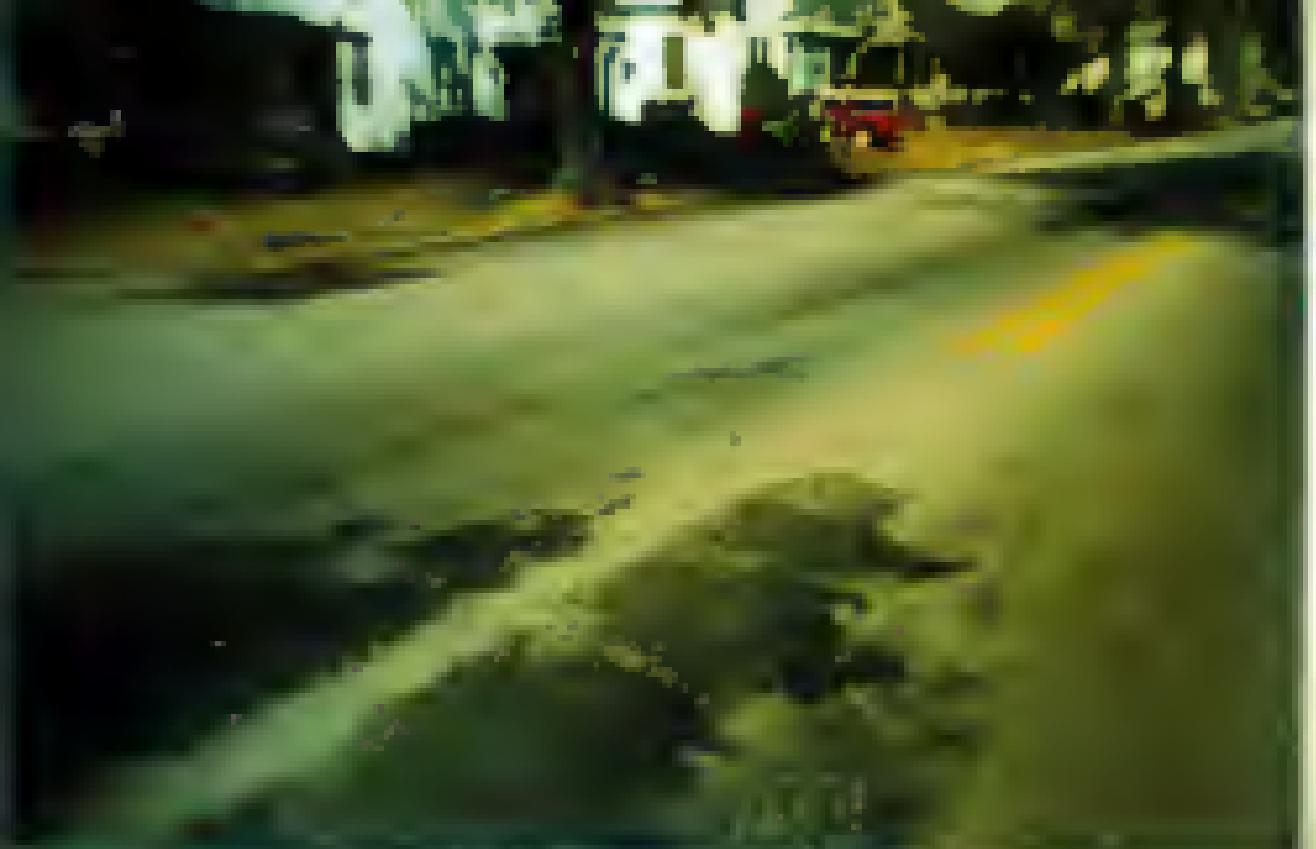
Fracture of the right
acetabulum with
dislocation of the right
hip joint



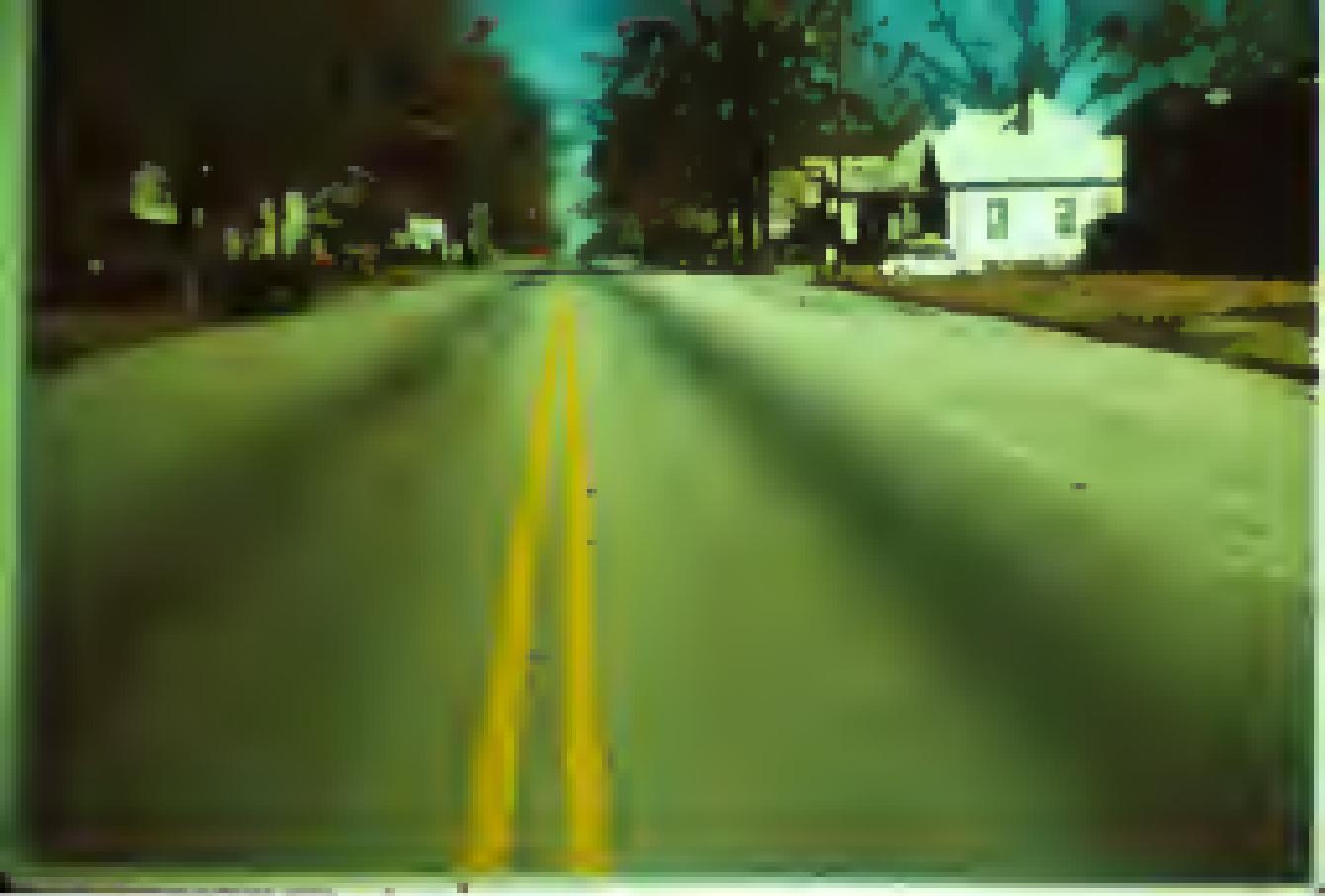
CA9222 #3
Best Available



CA9222 #4
Best Available



CA 8222 #5
Best Available



CA9222 #6
Best Available



CA9222 #7
Best Available



CA 9222 #8
Best Available



CA 9222 #9
Best Available



CA9222 #10



CA 9222 #11



CA9222 #12
Best Available



CA9222 #13



CA 9222 #14



CA9222 #15



CA 9222 #16



CA9222 #17



CA9222 #18



CA9222 #19
Best Available



**CA 9222 #20
Best Available**



CA 9222 #21



CA 9222 #22



CA 9222 #23



CA9222 #24
Best Available



CA9222 #25



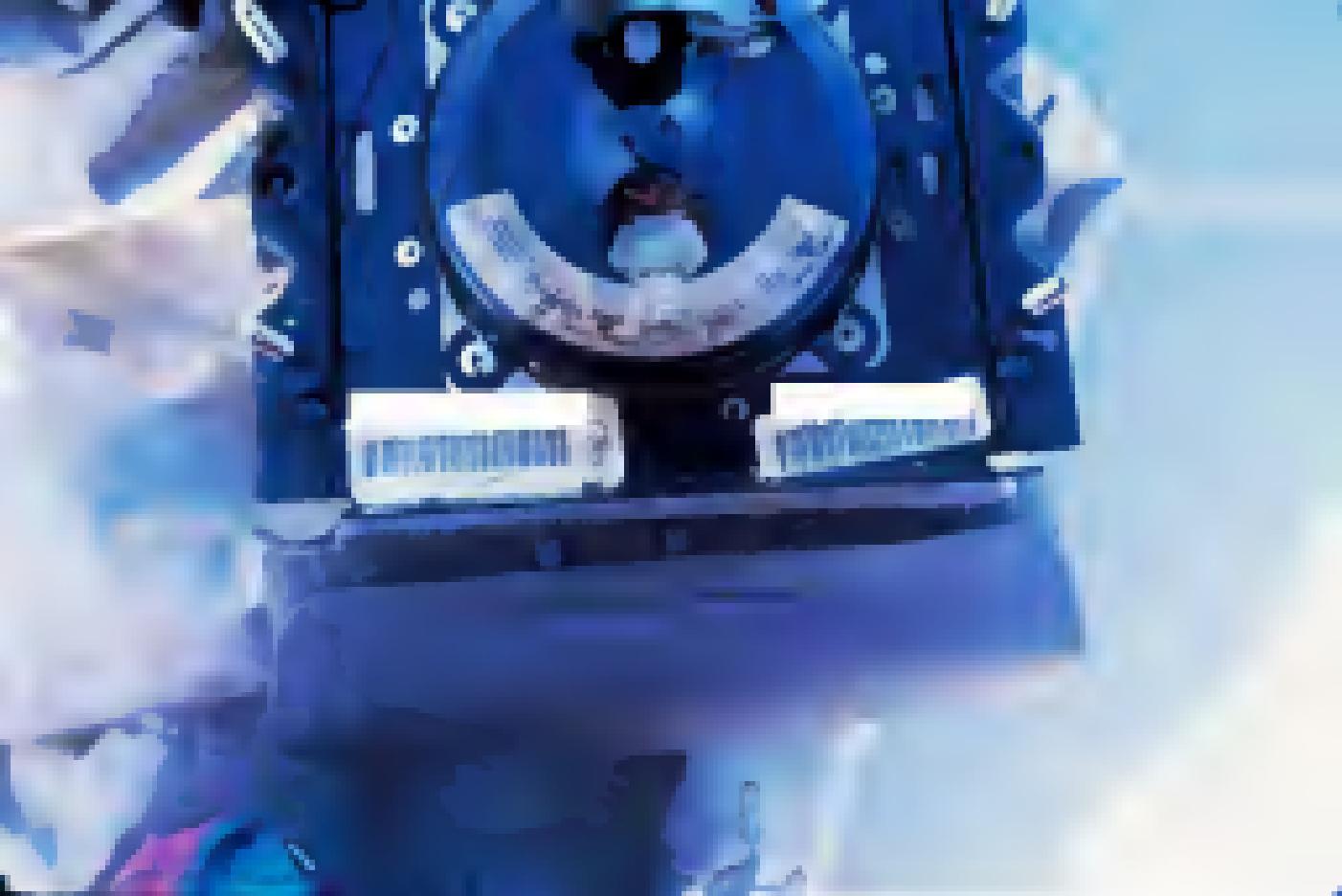
CA 9222 #26



CA9222 #27



CA9222 #28



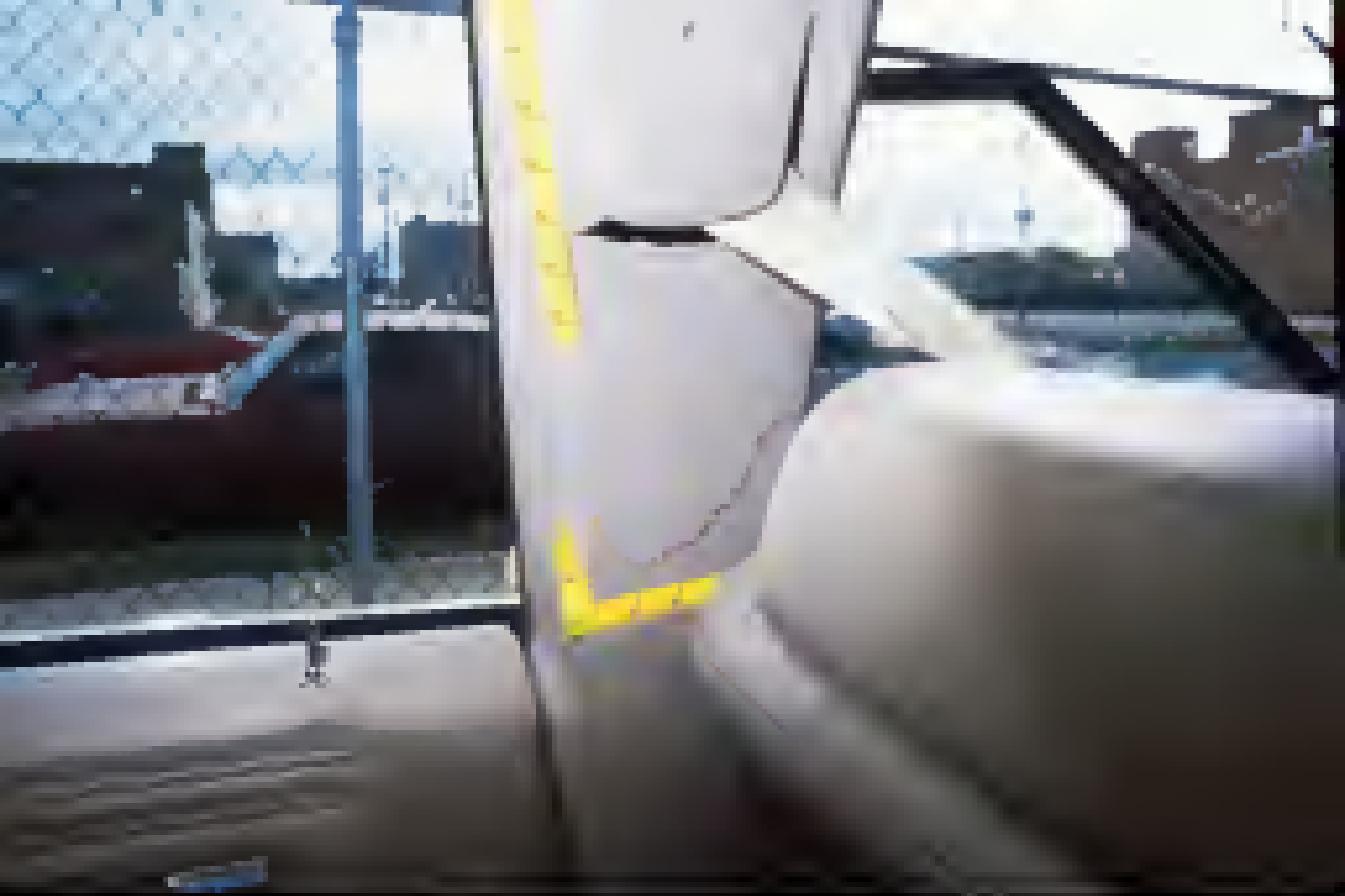
CA9222 #29



CA 9222 830
Best Available



CA 9222 #31
Best Available



CA 9222 #32
Best Available



CA 9222 #33
Best Available



CA 9222 #34
Best Available



CA 9222 #35
Best Available



CA 9222 #36
Best Available



CA 9222 #37



CA 9222 #38



CA9222 539



CA 9222 #40

APPENDIX A

Police Accident Report

SEATING

1	2	3	4	5	6	7	8	9
2	3	4	5	6	7	8	9	
4	5	6						
7	8	9						

(Circle One)

- 12 Pedestrian
- 13 Rider of Domestic Animal
- 14 Occ. of Non Motorized Vehicle
- 15 Victim of Other Circumstance/ Codes Not Applicable

Other Involved
Safety Equipment

1	2	3	4	5	6	7	8	9
2	3	4	5	6	7	8	9	
4	5	6						
7	8	9						

Vehicle Unit

- 12 Pedestrian
- 13 Rider of Domestic Animal
- 14 Occ. of Non Motorized Vehicle
- 15 Victim of Other Circumstance/ Codes Not Applicable

Other Involved
Safety Equipment

VICTIMS

Name

Address

11 A 73 F NM

Taken To

Taken By

N/A

Name

Address

21 A 29 M NM

Taken To

Taken By

CODES

Injury Type

K - Killed
B - Bruise/Abrasion/Swelling
A - Visible or Carried from Scene
C - Not Visible—Has Pain/Faint

N - Not
P - Fully
F - Partially

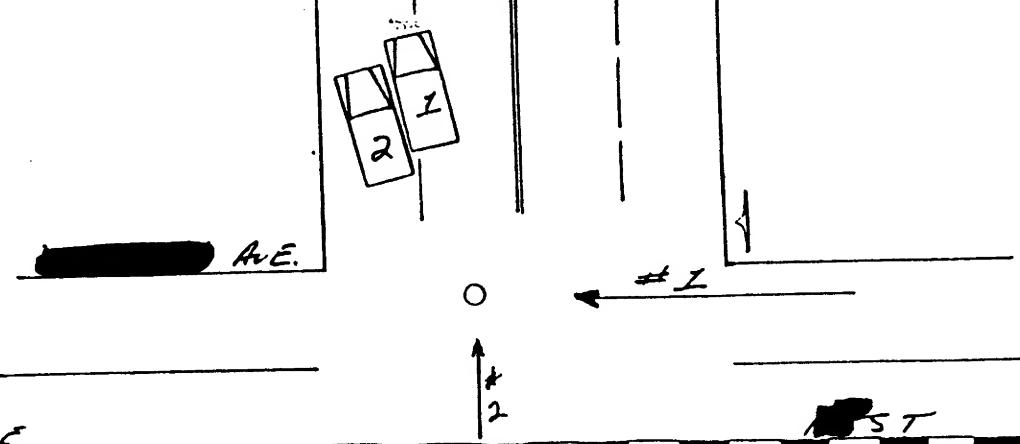
Ejected
T - Trapped
U - Unknown
A - Not Applicable

A - Ambulance Attended
0 - Doctor

First Aid By
M - Paramedic
0 - Other

P - Police
U - Unknown
N - None

NARRATIVE AND DIAGRAM



NOT TO SCALE

Officer's Opinion of What Happened: UNIT #1 DID NOT SEE UNIT #2. UNIT #1 PROCEEDED INTO INTERSECTION AFTER STOPPING. UNIT #2 WAS UNABLE TO STOP BEFORE IMPACT WITH UNIT #1. POINT OF IMPACT WAS 3' SOUTH OF NORTH CURB OF 22' ST AND 22' EAST OF WEST CURB OF [REDACTED] AVE.

N/A

N/A

ROADWAY ENVIRONMENT

For Each Roadway Environment Field, Circle One Entry for Each Involved Unit:	
Unit 1 1	Contributing Road Defects None
Unit 2 2	Shoulders Low Shoulders High Holes/Bumps, Etc. Other
1	Asphalt Concrete Brick Unpaved Gravel
2	Wet Icy Snowy/Slushy Muddy Other

Material in Roadway (Contributing)		Material Source		Character	
None	5	5	Gravel	1	Straight—level
Hicks	6	6	Oil/Petrol	2	2 - Straight—Down Grade
Trees/Limbs	8	8	Other	3	3 - Straight—Up Grade
4	4	4	Already in Road, But Fell From Vehicle	4	4 - Straight—Hillcrest
4	4	8	Other	5	5 - Curve—level
	9	9	Unknown		

Vision Obscured by:	
Not Obscured	Blinded by Sunlight
Buildings	Fire/Smoke
Signboard	Dust
Trees, Crops, Bushes	Blinded by Headlights
Blowing Snow/Sand	Embankment
Hillcrest	Rain on Windshield
Curve in Road	Snow on Windshield
Fog	Other
Parked Vehicle	Unknown
Moving Vehicle(s)	

Traffic Control	
Police Officer	Flagger
R.R. Crossing Gates	No Passing Zone
R.R. Flashing Lights	None
R.R. Cross Bucks/Pave Mark	Other
Pedestrian Control	Yes
Traffic Signal	No
Flashing Beacon	No
Stop Sign	Yes
Yield Sign	No
10	Lane Control Device

Opposing Lanes Separated By:	
None	None
Paved Surface	Two Lanes
Unpaved Surface	Three Lanes
Broken Painted Line	Four Lanes
Solid Painted Line	Five Lanes
Concrete Barrier	Six Lanes or More
Metal Guard Rail	
Fence	
Other Barrier	

Traffic Lanes	
One Lane	1
Two Lanes	2
Three Lanes	3
Four Lanes	4
Five Lanes	5
Six Lanes or More	6

One Way Street

Yes

Yes

Property Damage Description	
Description	
Owner	
Address	N/A

Telephone	

Supervisor Review	

Light	Weather	Locale	Non-Vehicular Property Damage
Daylight	4 - Darkness—Road Not Lit	1 - Open Country 5 - Residential 6 - Commercial 7 - Industrial	None Visible
2 - Dawn	5 - Darkness—Road Lit	2 - School 3 - Playground 4 - Other	Moderate
3 - Dusk	6 - Rain	5 - School 6 - Playground 7 - Industrial	Severe
	7 - Fog		
	8 - Snow		
	9 - Other		

Time Police Notified	AM	Time Police Arrived	AM	Name of Photographer
12/14/01	PM	12/18/01	PM	N/A

Witness Full Name	Address	Officer ID	Agency (IRI)

Name of Investigating Officer	Officer ID	Agency (IRI)

The data on this report reflects my best knowledge, opinion and belief covering the accident. I am not responsible for the factual accuracy thereof.

Signature of Investigating Officer

Date

APPENDIX B

Air Bag Supplement

ACCIDENT SUMMARY

ACCIDENT DATE 1/19/92POLICE INVESTIGATED (1,2,9)*
ALCITY COUNTY

GENERAL LOCALITY

- (1) Freeway, Limited Access
- (2) Urban (City)
- (3) Urban-Rural (mixed)
- (4) Rural, Fields

CONFIGURATION (First Harm)

- (0) Struck Object or Pedestrian
- (1) Rear-End
- (2) Head-On
- (3) Rear-to-Rear
- (4) Angle
- (5) Sideswipe-Same Direction
- (6) Sideswipe-Opposite Direct.
- (7) NonColl:eg Fell from Veh
- (8) NonImpact Deployment
- (9) Unknown

FIRE INVOLVED (0) None

- (1) AirBag Vehicle
- (2) Other Vehicle
- (3) Both Vehicles
- (9) Unknown

NUMBER: VEHICLES INVOLVED

(8)=8 or more
PERSONS INVOLVED

INJURED PERSONS

MAXIMUM AIS IN ACCIDENT

OTHER VEHICLE: MAXIMUM AIS

PRIME/DEPLOY IMPACT w AB VEH:
EVENT NUMBERCDC D 1 - F A E W - 2

TOTAL DELTA-V

Model Year, Make, Model, Body Type:

1977 CHEVROLET NOVA, 2DR

AIRBAG VEHICLE INSPECTION

DATE VEH. INSPECTED 1/92

REASON VEHICLE NOT INSPECTED

- (0) Not Required
- (1) Inspection Completed
- (2) Cannot be Located**
- (3) Repaired or Destroyed**
- (5) Refusal or Impounded**
- (7) Other*

**Specify: _____

IMPACT DATA OBTAINED

- (0) No Data Obtained
- (1) CDC Only
- (2) Crush Profile Only
- (3) Trajectory Data Only
- (4) CDC and Crush Profile
- (5) CDC and Trajectory
- (6) Crush and Trajectory
- (7) CDC, Crush & Trajectory

BASIS OF DELTA-V

- (0) Not Computed (Unknown Why)
- (1) CRASH - Damage Only
- (2) CRASH - Damage+Trajectory
- (3) Missing Vehicle Algorithm
- (4) Yielding Object Algorithm
- (5) Unknown Basis
- (6) One Vehicle Beyond Scope
- (7) Collision Beyond Scope
- (8) Insufficient Data

VEHICLE HISTORY

HAS AIRBAG VEHICLE BEEN IN
ANY PRIOR IMPACTS (1,2,9)*HAS ANY PRIOR MAINTENANCE/SERVICE
BEEN PERFORMED ON SYSTEM(1,2,9)*

*Describe: _____

AIRBAG VEHICLE: FLEET PRIVATE (MERC. MAQU)

VIN 2MECM25ELMX -

MILEAGE 11,127 miles

SYSTEM READINESS LAMP
(in Instrument Cluster)

PRE-IMPACT LAMP CONDITION

- (1) Functioning/Proved Out
- (2) Inoperative
- (9) Unknown

DRIVER'S REPORT OF
PRE-IMPACT FLASHING

- (00) No Flashing Reported
- (01) Continuous Flashing
- (02) -->Number of Flashes
- (11)
- (12) Constant Light
- (19) Flashing, Unkn Number
- (88) Not App (system removed)
- (99) Unknown

PERIOD OF PRE-IMPACT FLASHING

- (0) No Flashing
- (1) Same Day as Impact
- (2) Prior Day
- (3) Prior Two Days
- (4) Prior Week
- (5) Prior Month
- (6) Over One Month
- (9) Unknown

POST-IMPACT LAMP CONDITION

- (1) Functioning/Proved Out
- (2) Inoperative
- (9) Unknown

POST-IMPACT FLASHING

- (00) No Flashing
- (01) Continuous Flashing
- (02) -->Number of Flashes
- (11)
- (12) Constant Light
- (19) Flashing, Unkn Number
- (88) Not Appl (removed)
- (99) Unknown

AIRBAG VEHICLE
FIRST HARMFUL EVENT

13

- (01) Fire or explosion
- (02) Immersion
- (03) Gas Inhalation
- (04) Fell from vehicle
- (05) Injured in vehicle
- (06) Other noncollision (specify):
- (07) Overturn
- (08) Jackknife with intraunit damage
Collision With:
- (09) Pedestrian
- (10) Pedalcyclist
- (11) Railway train
- (12) Animal
- (13) Motor vehicle in transport (same roadway)
- (14) Motor vehicle in transport (other roadway)
- (15) Parked motor vehicle
- (16) Other type nonmotorist (specify):
- (17) Thrown or falling object
- (18) Boulder
- Collision with Fixed Object:
- (20) Building
- (21) Impact attenuator/Crash Cushion
- (22) Bridge pier or abutment
- (23) Bridge parapet end
- (24) Bridge rail
- (25) Guardrail
- (26) Concrete traffic barrier
- (27) Median barrier
- (28) Other longitudinal barrier (specify):
- (29) Highway/Traffic sign post
- (30) Overhead sign support
- (31) Luminaire/Light support
- (32) Utility pole
- (33) Other post, pole, or support (specify):
- (34) Culvert
- (35) Curb
- (36) Ditch
- (37) Embankment-earth
- (38) Embankment-rock, stone or concrete
- (39) Fence (wooden, wire, chain link, etc.)
- (40) Wall (stone, rock, metal, etc.)
- (41) Fire hydrant
- (42) Shrubbery
- (43) Tree
- (44) Other fixed object (specify):
- (45) Pavement surface irregularity (pothole, grooved, grates)
- (99) Unknown

AIRBAG VEHICLE IMPACT SUMMARY

VEHICLE ROLE

- (0) Non-collision
- (1) Striking Unit
- (2) Struck Unit
- (3) Both Striking and Struck
- (9) Unknown

MANNER OF LEAVING SCENE

- (1) Driven
- (2) Towed-due to damage
- (3) Towed - not for damage
- (4) Towed - details unknown
- (5) Abandoned
- (9) Unknown

NUMBER OF IMPACT EVENTS

- (8) 8 or more, (9) Unknown

ROLLOVER (0) No Rollover

- (1) First Event
- (2) Subsequent Event
- (3) Yes, UnknownEvent
- (9) Unknown

OVERRIDE/UNDERRIDE

- (1) No over/underride
- (1) Override - 1st CDC
- (3) - Other CDC
- (4) Underride - 1st CDC
- (6) - Other CDC
- (9) Unknown

AIRBAG VEHICLE DAMAGE

CODES: (1) Yes, DAMAGED
 (2) No Damage
 (9) Unknown

LEFT FRONT FENDER DAMAGE

RIGHT FRONT FENDER DAMAGE

CENTER TOP OF GRILLE DAMAGE

FRONT BUMPER E.A. STATUS: Left

(1) Normal	Right
(2) Extended	
(3) Partial Compression	
(4) Complete Compression	
(5) Not Applicable	
(9) Unknown	

FIRST AIRBAG VEHICLE IMPACT:

CONFIGURATION

- (0) Struck Object or Pedestrian
- (1) Rear-End
- (2) Head-On
- (3) Rear-to-Rear
- (4) Angle
- (5) Sideswipe - Same Direction
- (6) Sideswipe-Opposite Direct.
- (7) NonColl:eg Fell from Veh
- (8) NonImpact Deployment
- (9) Unknown

2CDC 10 - LYEW - 3OBJECT CONTACTED: 77 CHEVROLET NOVA2

PRIMARY/DEPLOYMENT IMPACT:

0

EVENT NUMBER

TOTAL DELTA-V 15 mph1

LONGITUDINAL DELTA-V

CONFIGURATION

- (0) Struck Object or Pedestrian
- (1) Rear-End
- (2) Head-On
- (3) Rear-to-Rear
- (4) Angle
- (5) Sideswipe - Same Direction
- (6) Sideswipe-Opposite Direct.
- (7) NonColl:eg Fell from Veh
- (8) NonImpact Deployment
- (9) Unkonwn

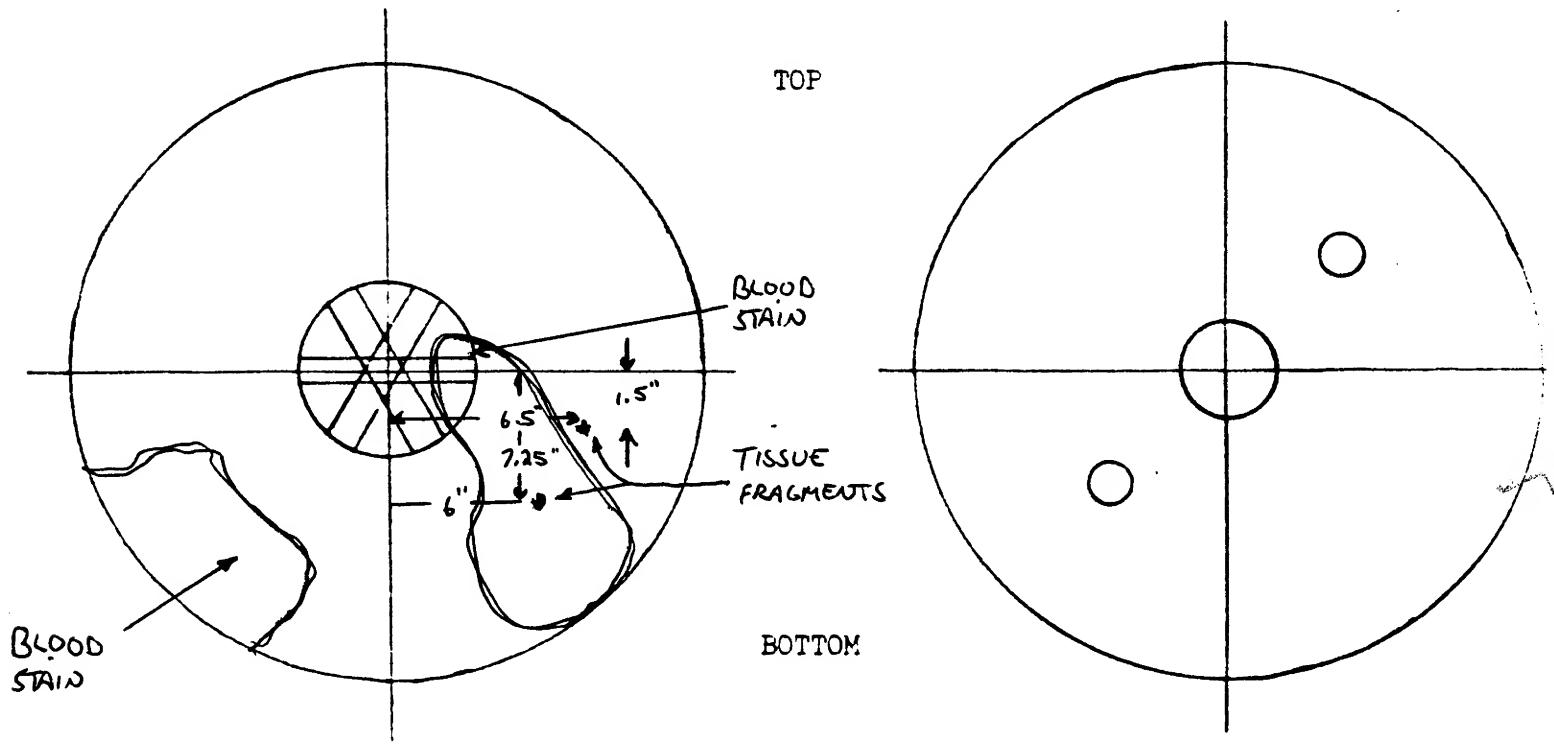
1CDC 10 - LYEW - 32OBJECT CONTACTED: 77 CHEVROLET NOVA2

NOTES:

11

AIRBAG SYSTEM DAMAGE		CONDITION OF DEPLOYED BAG	1
CODES: (1) Yes, Damaged* (2) No, Intact (8) Not App. (Removed) (9) Unknown		(1) Bag Intact (2) Split or Torn* (3) Cut by Object in Impact* (4) Cut after Accident* (5) Other (e.g., burned)* (8) N/A (not deployed) (9) Unknown	
AIRBAG MODULE (NORMAL DEPLOYMENT)	1		
SENSORS: Left Front	2		
Center Front	2	*DESCRIBE System and Bag Damage:	
Right Front	2		
Rear, Cowl	8		
DIAGNOSTIC MODULE	2		
WIRING	2		
KNEE DIVERTER	2		
INDICATION OF DISCONNECTED OR LOOSE ELECTRICAL CONNECTORS	2		

NOTE DAMAGE AND CONTACT MARKS ON AIRBAG DIAGRAMS BELOW:



OCCUPANTS/DRIVER

AIRBAG SUPPLEMENT AB-5

OCCUPANTS of AIRBAG CAR		NOTES: <u>3</u> <u>1</u> <u>3</u>
NUMBER OF OCCUPANTS IN VEHICLE (8) 8 or more		
NUMBER OF INJURED PERSONS		
MAXIMUM AIS IN AIRBAG VEHICLE (0) No Injury (1-6) AIS Severity (7) Injured, Unknown Severity (9) Unknown		
DRIVER AGE <u>73</u> SEX <u>FEMALE</u>		<u>7</u> <u>2</u>
NUMBER OF DRIVER INJURIES		
SOURCE OF BEST INJURY DATA (0) Not Injured (1) Autopsy w/wo med. records (2) Hospital Medical Records (3) Emergency Room only (4) Private physician, Clinic (5) Lay Coroner Report (6) EMS Personnel (7) Interviewee (8) Police (9) Unknown		

MAXIMUM AIS BY BODY REGION		
REGION	MAX AIS	CONTACT
Head/Neck/Face	—	— —
Chest	—	— —
Abdomen	—	— —
Leg/Hips	<u>1</u>	<u>20</u>
Other (Arms)	<u>3</u>	<u>45</u>
DRIVER MAXIMUM	<u>3</u>	<u>45</u>

EJECTION: Extent <u>NONE</u>		
Portal	<u>N/A</u>	

DRIVER BELT USAGE: (1) Used (2) Not Used (9) Unknown 1

Evidence: DRIVER STATEMENTS, BLOOD ON SHOULDER BELT WEBBING
AT LATCHPLATE

DRIVER POSTURE: Any Comments Recorded (1) Yes, (2) No 1

Describe driver's posture and position on seat including specific comments on head, torso, buttocks, legs and feet. Also note hand and arm position. Did driver brace before crash? Describe:

NORMAL UPRIGHT SEATED POSITION WITH BOTH HANDS ON STEERING WHEEL.
RIGHT FOREARM IN LEFT TURN MODE ACROSS AIR BAG MODULE

DRIVER FOREIGN OBJECTS: Comments Recorded (1) Yes, (2) No 1

Was driver wearing contact lenses or eyeglasses? Or holding any foreign object at the time of the impact (packages on lap, pipe, food, bottle, cigarette, etc.)? Did any lenses, objects, or jewelry play any role?

① PLASTIC FRAMED EYEGLASSES, REMAINED ON FACE ② WATCH ON L WRIST,
REMAINED IN PLACE ③ BUTTERFLY PIN ON L CHEST, REMAINED IN PLACE

DRIVER COMMENTS: Comments Recorded (1) Yes, (2) No 1

Was the driver aware that the vehicle was equipped with a supplemental restraint system? Did driver offer any comments on smoke, noise, etc.? Did the driver comment on the airbag as a restraint system? Describe:

DRIVER AND PASSENGERS NOTED SMOKE IN VEHICLE, DARK
PARTICLES IN HAIR AND WOUND. DRIVER ALSO NOTED A "HORRIBLE
GASEOUS" ODOR IN VEHICLE.

PASSENGER-AIRBAG CONTACT (1) Yes, (2) No, (9) Unknown 2

Describe: NO CF OR RF PASSENGER CONTACT TO BAG.

APPENDIX C

CRASHPC Output
(Damage Algorithm)

SUMMARY OF CRASHING RESULTS USING DAMAGE

CRASHING RECONSTRUCTION

SPEED CHANGE
(DAMAGE)

VEHICLE #1

TOTAL 24 KPH (-15 MPH)
 LONGITUDINAL -21 KPH (-13 MPH)
 LATITUDINAL 12 KPH (-8 MPH)
 PDOF ANGLE -30 DEGREES
 ENERGY DISSIPATED = 50324 JOULES (-37112 FT-LB)

VEHICLE #2

TOTAL 29 KPH (-18 MPH)
 LONGITUDINAL -27 KPH (-17 MPH)
 LATITUDINAL -10 KPH (-6 MPH)
 PDOF ANGLE 20 DEGREES
 ENERGY DISSIPATED = 49927 JOULES (-36819 FT-LB)

DIMENSIONS AND INERTIAL PROPERTIES

VEHICLE #1

CG TO FRONT AXLE 139 CM. (-55 IN.)
 CG TO REAR AXLE 150 CM. (-59 IN.)
 TRACK 157 CM. (-62 IN.)
 CG TO FRONT OF VEH 251 CM. (-99 IN.)
 CG TO REAR OF VEH -290 CM. (-114 IN.)
 CG TO SIDE OF VEH 93 CM. (-37 IN.)
 MOMENT OF INERTIA 17965 KGS (-39395 LBS)
 VEHICLE MASS 5 KGS (-11 LBS)

VEHICLE #2

CG TO FRONT AXLE 179 CM. (-67 IN.)
 CG TO REAR AXLE 150 CM. (-57 IN.)
 TRACK 157 CM. (-62 IN.)
 CG TO FRONT OF VEH 251 CM. (-99 IN.)
 CG TO REAR OF VEH -290 CM. (-114 IN.)
 CG TO SIDE OF VEH 93 CM. (-37 IN.)
 MOMENT OF INERTIA 15219 KGS (-33770 LBS)
 VEHICLE MASS 6 KGS (-13 LBS)

CRASH DATA

VEHICLE #1

SIZE CATEGORY 4
 STIFFNESS CATEGORY 4
 VEHICLE WEIGHT 1837 KGS (-4049 LBS)
 CDC POLYURETHANE
 PDOF ANGLE -30 DEGREES
 CRUSH LENGTH 164 CM. (-73 IN.)
 C1 4 CM. (-1 IN.)
 C2 21 CM. (-8 IN.)
 C3 25 CM. (-10 IN.)
 C4 27 CM. (-11 IN.)
 C5 23 CM. (-9 IN.)
 C6 5 CM. (-2 IN.)
 D 145 CM. (-57 IN.)
 D' 145 CM. (-57 IN.)

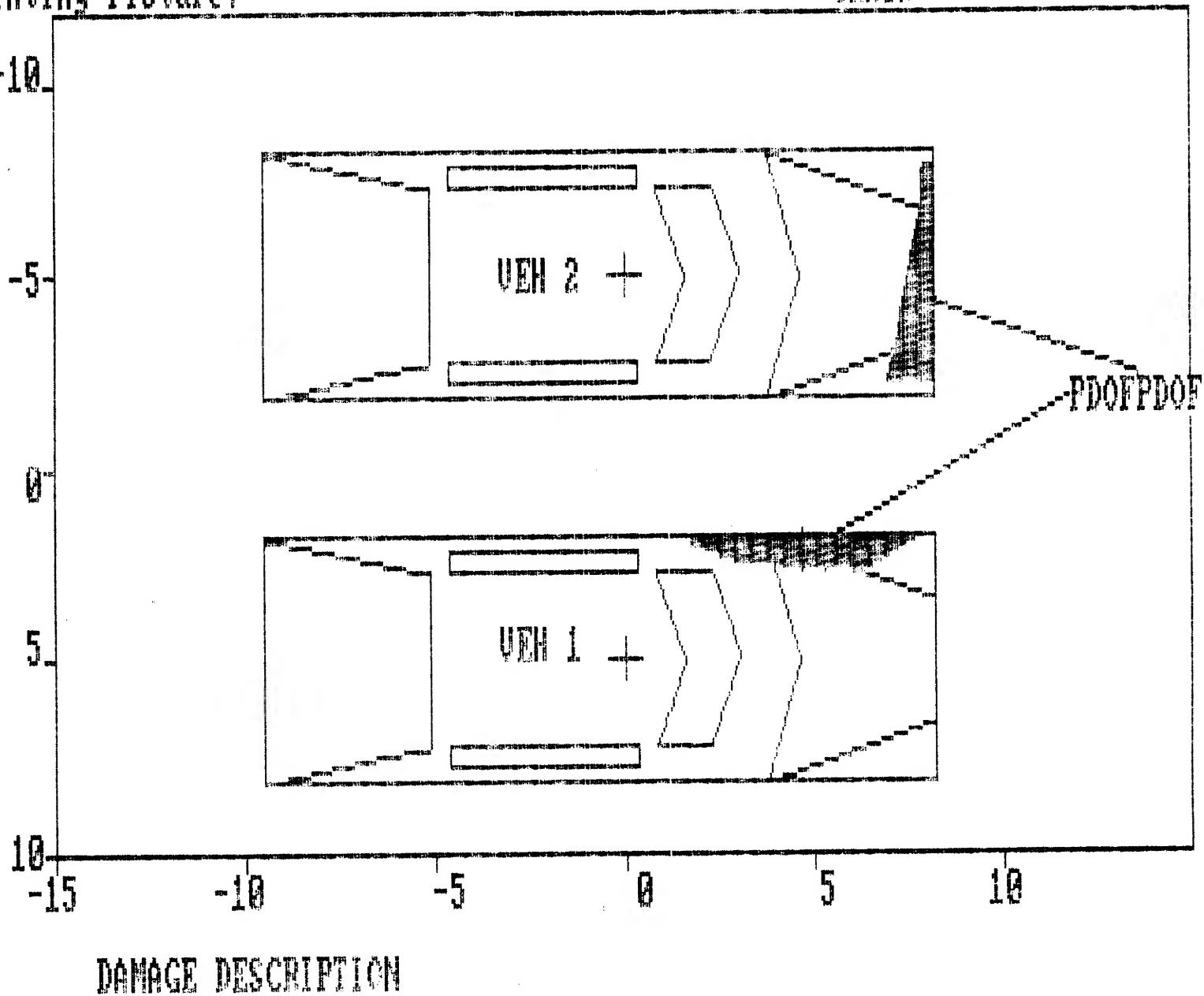
VEHICLE #2

SIZE CATEGORY 4
 STIFFNESS CATEGORY 4
 VEHICLE WEIGHT 1764 KGS (-3447 LBS)
 CDC STEEL
 PDOF ANGLE 20 DEGREES
 CRUSH LENGTH 170 CM. (-67 IN.)
 C1 2 CM. (-1 IN.)
 C2 9 CM. (-4 IN.)
 C3 16 CM. (-6 IN.)
 C4 23 CM. (-9 IN.)
 C5 20 CM. (-8 IN.)
 C6 37 CM. (-15 IN.)
 D 0 CM. (-0 IN.)
 D' 22 CM. (-8 IN.)

* INDICATES DEFAULT VALUE

Printing Picture:

CRASH



APPENDIX D

NASS Vehicle Forms
(Air Bag Vehicle)



GENERAL VEHICLE FORM

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

VEHICLE IDENTIFICATION

4. Vehicle Model Year

Code the last two digits of the model year
(99) Unknown

5. Vehicle Make (specify):

MERCURY

Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(99) Unknown

6. Vehicle Model (specify):

GRAND MARQUIS LS

Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(999) Unknown

7. Body Type

Note: Applicable codes may be found on
the back of this page.

8. Vehicle Identification Number

2M ECM 25E1MX

Left justify; Slash zeros and letter Z (0 and Z)
No VIN—Code all zeros
Unknown—Code all nine's

OFFICIAL RECORDS

9. Police Reported Vehicle Disposition

(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown

10. Police Reported Travel Speed

Code to the nearest mph (NOTE: 00 means
less than 0.5 mph)
(97) 96.5 mph and above
(99) Unknown

11. Police Reported Alcohol Presence

- (0) No alcohol present
- (1) Yes (alcohol present)
- (7) Not reported
- (8) No driver present
- (9) Unknown

Note: See variables 37 through 55
(Page 4) for information on Other Drugs

12. Alcohol Test Result For Driver

Code actual value (decimal implied
before first digit—0.xx)

- (95) Test refused
- (96) None given
- (97) AC test performed, results unknown
- (98) No driver present
- (99) Unknown

Source: _____

ACCIDENT RELATED

13. Speed Limit

(00) No statutory limit
Code posted or statutory speed limit
(99) Unknown

14. Attempted Avoidance Maneuver

- (00) No impact
- (01) No avoidance actions
- (02) Braking (no lockup)
- (03) Braking (lockup)
- (04) Braking (lockup unknown)
- (05) Releasing brakes
- (06) Steering left
- (07) Steering right
- (08) Braking and steering left
- (09) Braking and steering right
- (10) Accelerating
- (11) Accelerating and steering left
- (12) Accelerating and steering right
- (97) No driver present
- (98) Other action (specify): _____
- (99) Unknown

15. Accident Type

Applicable codes may be found on the
back of page two of this field form

(00) No impact
Code the number of the diagram that
best describes the accident circumstance
(98) Other accident type (specify): _____

(99) Unknown

***** SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 *****

CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): _____
- (09) Unknown automobile type

Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

Utility Vehicles ($\leq 10,000$ lbs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravado, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Landcruiser, Rover, Scout)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

Van Based Light Trucks ($\leq 10,000$ lbs GVWR)

- (20) Minivan (Chrysler Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Dodge/Plymouth Vista, Aerostar, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Mitsubishi Minivan, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ($\leq 10,000$ lbs GVWR)
- (23) Van based motorhome ($\leq 10,000$ lbs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): _____
- (29) Unknown van type

Light Conventional Trucks (Pickup style cab, $\leq 10,000$ lbs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500,)
- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (38) Unknown pickup style light conventional truck type

Other Light Trucks ($\leq 10,000$ lbs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): _____
- (59) Unknown bus type

Medium/Heavy Trucks ($> 10,000$ lbs GVWR)

- (60) Step van ($> 10,000$ lbs GVWR)
- (61) Single unit straight truck ($10,000$ lbs $<$ GVWR \leq 19,500 lbs)
- (62) Single unit straight truck (19,500 lbs $<$ GVWR \leq 26,000 lbs)
- (63) Single unit straight truck ($> 26,000$ lbs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

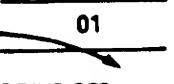
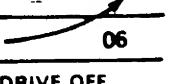
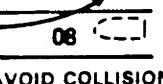
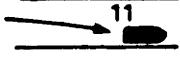
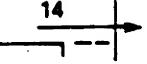
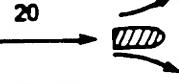
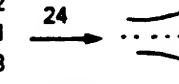
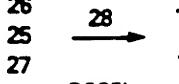
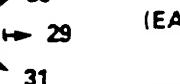
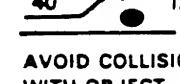
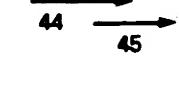
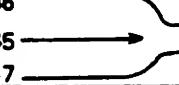
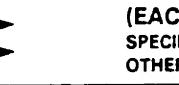
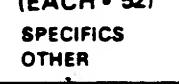
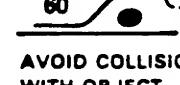
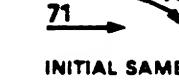
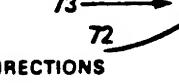
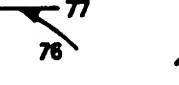
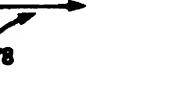
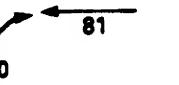
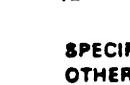
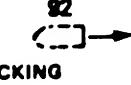
Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): _____
- (89) Unknown motored cycle type

Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type

OCCUPANT RELATED	
16. Driver Presence in Vehicle (0) Driver not present (1) Driver present (9) Unknown	1
17. Number of Occupants This Vehicle (00-96) Code actual number of occupants for this vehicle (97) 97 or more (99) Unknown	0 3
18. Number of Occupant Forms Submitted	0 3
VEHICLE WEIGHT ITEMS	
19. Vehicle Curb Weight 3836 Code weight to nearest 100 pounds. (010) Less than 1050 pounds (135) 13,500 pounds or more (999) Unknown	0 3 , 8 0 0
Source: _____	
20. Vehicle Cargo Weight N/A Code weight to nearest 100 pounds. (00) Less than 50 pounds (97) 9,650 pounds or more (99) Unknown	0 , 0 0 0
RECONSTRUCTION DATA	
21. Towed Trailing Unit (0) No towed unit (1) Yes—towed trailing unit (9) Unknown	0
22. Documentation of Trajectory Data for This Vehicle (0) No (1) Yes	0
23. Post Collision Condition of Tree or Pole (For Highest Delta V) (0) Not collision (for highest delta V) with tree or pole (1) Not damaged (2) Cracked/sheared (3) Tilted <45 degrees (4) Tilted ≥45 degrees (5) Uprooted tree (6) Separated pole from base (7) Pole replaced (8) Other (specify): (9) Unknown	0
24. Rollover (0) No rollover (no overturning) <i>Rollover (primarily about the longitudinal axis)</i> (1) Rollover, 1 quarter turn only (2) Rollover, 2 quarter turns (3) Rollover, 3 quarter turns (4) Rollover, 4 or more quarter turns (specify): (5) Rollover--end-over-end (i.e., primarily about the lateral axis) (9) Rollover (overtake), details unknown	
25. Front Override/Underride (this Vehicle) 26. Rear Override/Underride (this Vehicle) (0) No override/underride, or not an end-to-end impact <i>Override (see specific CDC)</i> (1) 1st CDC (2) 2nd CDC (3) Other not automated CDC (specify): <i>Underride (see specific CDC)</i> (4) 1st CDC (5) 2nd CDC (6) Other not automated CDC (specify): (7) Medium/heavy truck or bus override (9) Unknown	
HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V Values: (000)-(359) Code actual value (997) Noncollision (998) Impact with object (999) Unknown	
27. Heading Angle For This Vehicle	2 8 4
28. Heading Angle For Other Vehicle	0 3 2

Category	Configuration	ACCIDENT TYPES (includes Intent)						
I. Single Driver	A. Right Roadside Departure				04	05	SPECIFICS OTHER SPECIFICS UNKNOWN	
	B. Left Roadside Departure				09	10	SPECIFICS OTHER SPECIFICS UNKNOWN	
	C. Forward Impact					15	16	SPECIFICS OTHER SPECIFICS UNKNOWN
II. Same Trafficway Same Direction	D. Rear-End					30	(EACH • 32) (EACH • 33)	SPECIFICS OTHER SPECIFICS UNKNOWN
	E. Forward Impact					31	(EACH • 42) (EACH • 43)	SPECIFICS OTHER SPECIFICS UNKNOWN
	F. Sideswipe Angle				(EACH • 48) SPECIFICS OTHER	(EACH • 49) SPECIFICS UNKNOWN		
III. Same Trafficway Opposite Direction	G. Head-On			(EACH • 52) SPECIFICS OTHER	(EACH • 53)	SPECIFICS UNKNOWN		
	H. Forward Impact					61	(EACH • 62) (EACH • 63)	SPECIFICS OTHER SPECIFICS UNKNOWN
	I. Sideswipe Angle			(EACH • 66) SPECIFICS OTHER	(EACH • 67)	SPECIFICS UNKNOWN		
IV. Change Trafficway Vehicle Turning	J. Turn Across Path					(EACH • 74) (EACH • 75)	SPECIFICS OTHER SPECIFICS UNKNOWN	
	K. Turn Into Path					(EACH • 84) (EACH • 85)	SPECIFICS OTHER SPECIFICS UNKNOWN	
V. Intersecting Paths (Vehicle Damage)	L. Straight Paths					(EACH • 90) SPECIFICS OTHER	(EACH • 91) SPECIFICS UNKNOWN	
VI. Miscellaneous	M. Backing Etc.			98 Other Accident Type 99 Unknown Accident Type 00 No Impact				

<p>29. Basis for Total Delta V (highest) <u>1</u></p> <p><i>Delta V Calculated</i></p> <p>(1) CRASH program—damage only routine (2) CRASH program—damage and trajectory routine (3) Missing vehicle algorithm</p> <p><i>Delta V Not Calculated</i></p> <p>(4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions. (5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data. (6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.</p>	<p>Secondary Highest <u> + 0 8</u></p> <p>32. Lateral Component of Delta V <u> - 0 8</u> Nearest mph (NOTE: <u>00</u> means greater than -0.5 and less than +0.5 mph) (± 97) ± 96.5 mph and above (<u>99</u>) Unknown</p> <p>33. Energy Absorption <u>0 3 7, 1 0 0</u> <u>3712</u> Nearest 100 foot-lbs (NOTE: 0000 means less than 50 foot-lbs) (9997) 999,650 foot-lbs or more (9999) Unknown</p> <p>34. Confidence In Reconstruction Program Results (For Highest Delta V) <u>1</u> (0) No reconstruction (1) Collision fits model — results appear reasonable (2) Collision fits model — results appear high (3) Collision fits model — results appear low (4) Borderline reconstruction — results appear reasonable</p> <p>35. Type of Vehicle Inspection <u>1</u> (0) No inspection (1) Complete inspection (2) Partial inspection (specify): _____</p> <p>36. Is this an AOPS Vehicle? <u>1</u> (0) No (1) Yes</p>
<p>COMPUTER GENERATED DELTA V</p> <p>Secondary Highest</p> <p>30. Total Delta V <u>15</u> <u>15</u> Nearest mph (NOTE: 00 means less than 0.5 mph) (97) 96.5 mph and above (99) Unknown</p> <p>31. Longitudinal Component of Delta V <u>+ 0 1 3</u> <u>-13</u> Nearest mph (NOTE: <u>00</u> means greater than -0.5 and less than +0.5 mph) (± 97) ± 96.5 mph and above (<u>99</u>) Unknown</p>	

IS OLDMISS APPLICABLE FOR THIS VEHICLE? YES NO

IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? YES NO

37. Police Reported Other Drug Presence O

(0) No other drugs present
 (1) Yes (other drug present)
 (7) Not reported
 (8) No driver present
 (9) Unknown

38. Police Reported Observation/Perception Test Type For Driver O

(0) No observation/perception test given
 (1) Drug recognition technician (DRT) determination using DEC process
 (2) Behavioral
 (3) Other physical observation/perception determination (specify): _____
 (4) DEC process available, unknown if determination made
 (5) DEC process not available, unknown if other observation/perception test given
 (7) Other observation/perception test (specify): _____
 (8) No driver present

39. Other Drug Specimen Test Type For Driver O

(0) No specimen test given
 (1) Blood test
 (2) Urine test
 (3) Other specimen tests (specify): _____
 (7) Unspecified specimen test
 (8) No driver present
 (9) Unknown if specimen test given

DRUG EVALUATION CLASSIFICATION OTHER DRUGS TEST RESULTS FOR DRIVER

DEC Test Results	Observation/Perception Results	Specimen Test Results
40. <u>O</u>	41. <u>O</u>	
42. <u>O</u>	43. <u>O</u>	
44. <u>O</u>	45. <u>O</u>	
46. <u>O</u>	47. <u>O</u>	
48. <u>O</u>	49. <u>O</u>	
50. <u>O</u>	51. <u>O</u>	
52. <u>O</u>	53. <u>O</u>	
54. <u>O</u>	55. <u>O</u>	

Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)

Codes For Observation/Perception Test Results

(0) No DEC observation/perception test given
 (1) Passed DEC observation/perception test
 (2) Failed DEC observation/perception test
 (3) DEC observation/perception test given—results unknown
 (8) No driver present
 (9) Unknown if DEC observation/perception test given

Codes for Specimen Test Results

(0) No specimen test given
 (1) Drug not found in specimen
 (2) Drug found in specimen
 (7) Specimen test given, results unknown or not obtained
 (8) No driver present
 (9) Unknown if specimen test given

OTHER DATA

56. Driver's Zip Code

(00000) Driver not present
 (00001) Driver not a resident of U.S. or territories
 _____ Code actual 5-digit zip code
 (99999) Unknown

57. Driver's Race/Ethnic Origin

(0) Driver not present
 (1) White (non-Hispanic)
 (2) Black (non-Hispanic)
 (3) White (Hispanic)
 (4) Black (Hispanic)
 (5) American Indian, Eskimo or Aleut
 (6) Asian or Pacific Islander
 (8) Other (specify):

 (9) Unknown

58. Vehicle Special Use (This Trip)

(0) No special use
 (1) Taxi
 (2) Vehicle used as school bus
 (3) Vehicle used as other bus
 (4) Military
 (5) Police
 (6) Ambulance
 (7) Hearse
 (8) Fire truck or car
 (9) Unknown

ROLLOVER DATA

If GV07 (Body Type) ≠ 1-49, leave GV59-GV63 blank.
 If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.
 If GV24 = 9, then GV59-GV63 must equal 9.

59. Rollover Initiation Type

(0) No rollover
 (1) Trip-over
 (2) Flip-over
 (3) Turn-over
 (4) Climb-over
 (5) Fall-over
 (6) Bounce-over
 (7) Collision with another vehicle
 (8) Other rollover initiation type (specify):

 (9) Unknown rollover initiation type

60. Location of Rollover Initiation

(0) No rollover
 (1) On roadway
 (2) On shoulder—paved
 (3) On shoulder—unpaved
 (4) On roadside or divided trafficway median
 (9) Unknown

61. Rollover Initiation Object Contacted

62. Location on Vehicle Where Initial Principal Tripping Force Is Applied

(0) No rollover
 (1) Wheels/tires
 (2) Side plane
 (3) End plane
 (4) Undercarriage
 (5) Other location on vehicle (specify):

 (8) Non-contact rollover forces (specify):

 (9) Unknown

63. Direction of Initial Roll

(0) No rollover
 (1) Roll right - primarily about the longitudinal axis
 (2) Roll left - primarily about the longitudinal axis
 (5) End-over-end (i.e., primarily about the lateral axis)
 (9) Unknown roll direction

PRECRASH DATA

64. Pre-Event Movement (Prior to Recognition of Critical Event)

(01) Going straight
 (02) Slowing or stopping in traffic lane
 (03) Starting in traffic lane
 (04) Stopped in traffic lane
 (05) Passing or overtaking another vehicle
 (06) Disabled or parked in travel lane
 (07) Leaving a parking position
 (08) Entering a parking position
 (09) Turning right
 (10) Turning left
 (11) Making a U-turn
 (12) Backing up (other than for parking position)
 (13) Negotiating a curve
 (14) Changing lanes
 (15) Merging
 (16) Successful avoidance maneuver to a previous critical event
 (17) Other (specify):

 (98) No driver present
 (99) Unknown

CODES FOR ROLLOVER INITIATION OBJECT CONTACTED

(00) No rollover

(01-30) — Vehicle Number

Noncollision

(31) Turn-over — fall-over

(33) Jackknife

Collision With Fixed Object

(41) Tree (\leq 4 inches in diameter)

(42) Tree ($>$ 4 inches in diameter)

(43) Shrubbery or bush

(44) Embankment

(45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

(50) Pole or post (\leq 4 inches in diameter)

(51) Pole or post ($>$ 4 inches but \leq 12 inches in diameter)

(52) Pole or post ($>$ 12 inches in diameter)

(53) Pole or post (diameter unknown)

(54) Concrete traffic barrier

(55) Impact attenuator

(56) Other traffic barrier (includes guardrail)
(specify): _____

(57) Fence

(58) Wall

(59) Building

(60) Ditch or culvert

(61) Ground

(62) Fire hydrant

(63) Curb

(64) Bridge

(68) Other fixed object (specify): _____

(69) Unknown fixed object

Collision with Nonfixed Object

(71) Motor vehicle not in-transport

(76) Animal

(77) Train

(78) Trailer, disconnected in transport

(88) Other nonfixed object (specify): _____

(89) Unknown nonfixed object

(98) Other event (specify): _____

(99) Unknown event or object

PRECRASH DATA (Continued)

65. Critical Precrash Event 15*This Vehicle Loss of Control Due To:*

- (01) Blow out or flat tire
- (02) Stalled engine
- (03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
- (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
- (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
- (06) Traveling too fast for conditions
- (08) Other cause of control loss (specify): _____
- (09) Unknown cause of control loss

This Vehicle Traveling

- (10) Over the lane line on left side of travel lane
- (11) Over the lane line on right side of travel lane
- (12) Off the edge of the road on the left side
- (13) Off the edge of the road on the right side
- (14) End departure
- (15) Turning left at intersection
- (16) Turning right at intersection
- (17) Crossing over (passing through) intersection
- (19) Unknown travel direction

Other Motor Vehicle In Lane

- (50) Stopped
- (51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
- (52) Traveling in same direction with higher speed
- (53) Traveling in opposite direction
- (54) In crossover
- (55) Backing
- (59) Unknown travel direction of other motor vehicle in lane

Other Motor Vehicle Encroaching Into Lane

- (60) From adjacent lane (same direction)—over left lane line
- (61) From adjacent lane (same direction)—over right lane line
- (62) From opposite direction—over left lane line
- (63) From opposite direction—over right lane line
- (64) From parking lane
- (65) From crossing street, turning into same direction
- (66) From crossing street, across path
- (67) From crossing street, turning into opposite direction
- (68) From crossing street, intended path not known
- (70) From driveway, turning into same direction
- (71) From driveway, across path
- (72) From driveway, turning into opposite direction
- (73) From driveway, intended path not known
- (74) From entrance to limited access highway
- (78) Encroachment by other vehicle—details unknown

Pedestrian or Pedalcyclist, or Other Nonmotorist

- (80) Pedestrian in roadway
- (81) Pedestrian approaching roadway
- (82) Pedestrian—unknown location
- (83) Pedalcyclist or other nonmotorist in roadway (specify): _____
- (84) Pedalcyclist or other nonmotorist approaching roadway (specify): _____
- (85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

Object or Animal

- (87) Animal in roadway
- (88) Animal approaching roadway
- (89) Animal—unknown location
- (90) Object in roadway
- (91) Object approaching roadway
- (92) Object—unknown location
- (98) Other critical precrash event (specify): _____
- (99) Unknown

For Corrective Actions Attempted see variable GV14
(Attempted Avoidance Maneuver)

66. Precrash Stability After Avoidance Maneuver

- (0) No avoidance maneuver
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify): _____
- (8) No driver present
- (9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Maneuver (Corrective Action)

- (0) No avoidance maneuver
- (1) Vehicle stayed in travel lane where avoidance maneuver was initiated
- (2) Vehicle stayed on roadway but left travel lane where avoidance maneuver was initiated
- (3) Vehicle stayed on roadway, not known if left travel lane where avoidance maneuver was initiated
- (4) Vehicle departed roadway
- (5) Avoidance maneuver initiated off roadway
- (8) No driver present
- (9) Directional consequences unknown

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35=0), ***
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

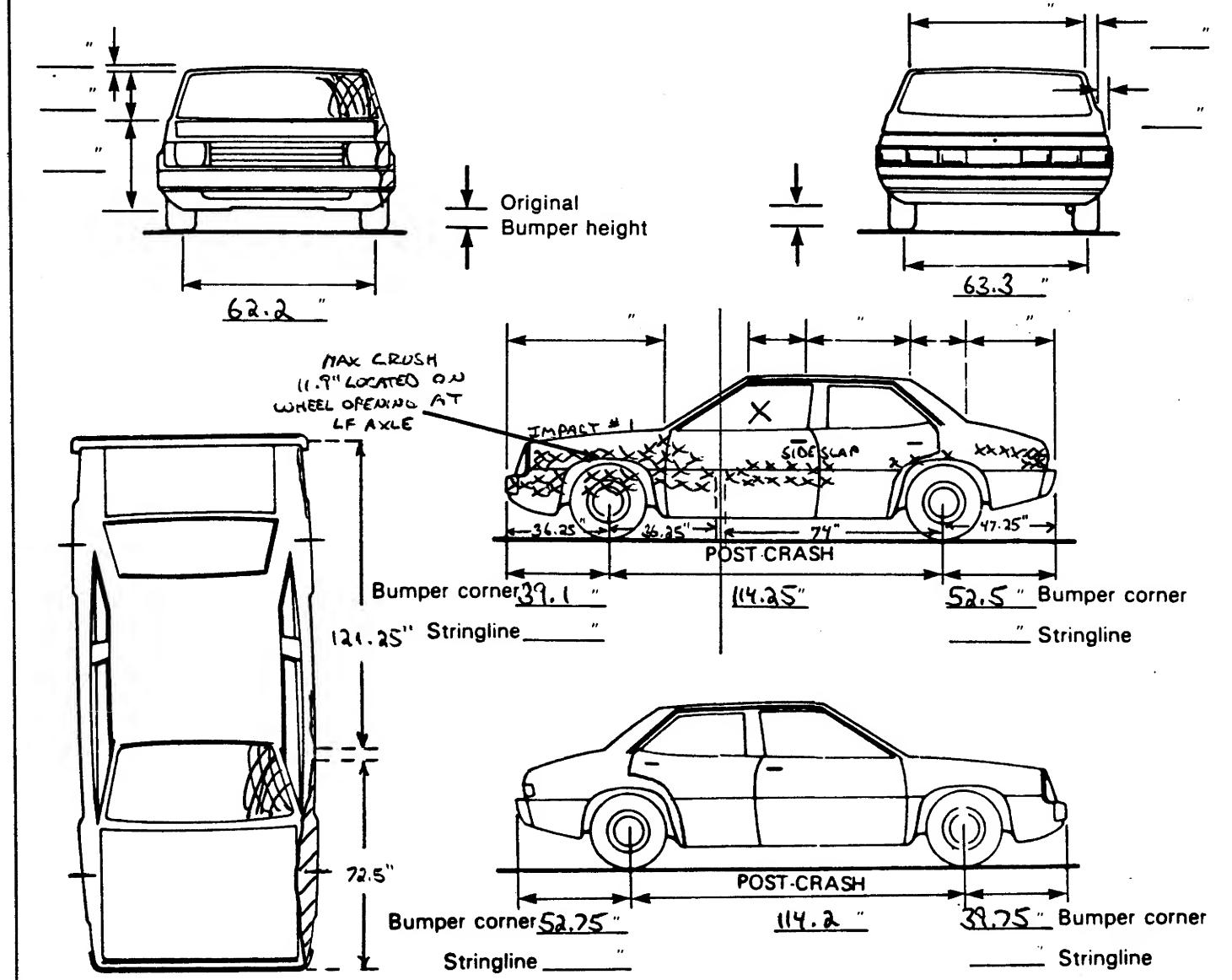
*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.



EXTERIOR VEHICLE FORM

VEHICLE DAMAGE SKETCH

TIRE-WHEEL DAMAGE		ORIGINAL SPECIFICATIONS		WHEEL STEER ANGLES (For locked front wheels or displaced rear axles only)	
a. Rotation physically restricted		b. Tire deflated		RF <u>2</u>	LF <u>2</u>
RF <u>2</u>	LF <u>1</u>	RF <u>2</u>	LF <u>2</u>	RR <u>2</u>	LR <u>2</u>
(1) Yes (2) No (8) NA (9) Unk.					
TYPE OF TRANSMISSION <u>4-SPEED</u> <input type="checkbox"/> Manual <input checked="" type="checkbox"/> Automatic		Wheelbase <u>114.3"</u> Overall Length <u>213.6"</u> Maximum Width <u>72.5"</u> Curb Weight <u>3836</u> Average Track <u>62.75"</u> Front Overhang Rear Overhang Engine Size: cyl./displ. <u>8, 5.0 liters</u> Undeformed End Width		RR <u>2</u> LR <u>2</u> Within \pm 5 degrees DRIVE WHEELS <input type="checkbox"/> FWD <input checked="" type="checkbox"/> RWD <input type="checkbox"/> 4WD Approximate Cargo Weight <u>N/A</u>	



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

CDC WORKSHEET

CODES FOR OBJECT CONTACTED

(01-30) — Vehicle Number

Noncollision

- (31) Overturn — rollover
- (32) Fire or explosion
- (33) Jackknife
- (34) Other intraunit damage (specify):

(35) Noncollision injury

(38) Other noncollision (specify):

(39) Noncollision – details unknown

Collision With Fixed Object

- (41) Tree (\leq 4 inches in diameter)
- (42) Tree ($>$ 4 inches in diameter)
- (43) Shrubbery or bush
- (44) Embankment

(45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

- (50) Pole or post (\leq 4 inches in diameter)
- (51) Pole or post ($>$ 4 inches but \leq 12 inches in diameter)
- (52) Pole or post ($>$ 12 inches in diameter)
- (53) Pole or post (diameter unknown)

- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail)
(specify): _____

(57) Fence
(58) Wall
(59) Building
(60) Ditch or culvert
(61) Ground
(62) Fire hydrant
(63) Curb
(64) Bridge
(68) Other fixed object (specify):

(69) Unknown fixed object

Collision with Nonfixed Object

- (71) Motor vehicle not in-transport
- (72) Pedestrian
- (73) Cyclist or cycle
- (74) Other nonmotorist or conveyance

(75) Vehicle occupant

(76) Animal

(77) Train

(78) Trailer, disconnected in transport

(88) Other nonfixed object (specify):

(89) Unknown nonfixed object

(98) Other event (specify):

(99) Unknown event or object

DEFORMATION CLASSIFICATION BY EVENT NUMBER

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>01</u>	5. <u>02</u>	6. <u>10</u>	7. <u>L</u>	8. <u>Y</u>	9. <u>E</u>	10. <u>W</u>	11. <u>03</u>

Second Highest Delta "V"

12. 02 13. 02 14. 09 15. L 16. Z 17. M 18. W 19. 01

CRUSH PROFILE

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN INCHES.)

HIGHEST DELTA "V"

20. <u>L</u>	21. <u>C₁</u>	<u>C₂</u>	<u>C₃</u>	<u>C₄</u>	<u>C₅</u>	<u>C₆</u>	22. <u>± D</u>
<u>023</u>	<u>03</u>	<u>08</u>	<u>10</u>	<u>11</u>	<u>09</u>	<u>01</u>	<u>± 052</u>

Second Highest Delta "V"

23. <u>L</u>	24. <u>C₁</u>	<u>C₂</u>	<u>C₃</u>	<u>C₄</u>	<u>C₅</u>	<u>C₆</u>	25. <u>± D</u>
<u>121</u>	<u>00</u>	<u>00</u>	<u>00</u>	<u>00</u>	<u>00</u>	<u>01</u>	<u>± 044</u>

26. Are CDCs Documented but Not Coded on The Automated File?
 (0) No
 (1) Yes

27. Researcher's Assessment of Vehicle Disposition
 (0) Not towed due to vehicle damage
 (1) Towed due to vehicle damage
 (9) Unknown

28. Original Wheelbase 14.3" Code to the nearest tenth of an inch
 (9999) Unknown

<p>29. Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle? <input checked="" type="checkbox"/></p> <p>(0) No post manufacturer modifications (1) Yes - post manufacturer modifications (specify): _____</p> <p>(Include photograph of CERTIFICATION PLACARD in case report)</p> <p>(9) Unknown if vehicle is modified</p> <p>30. Fire Occurrence <input checked="" type="checkbox"/></p> <p>(0) No fire</p> <p>Yes, fire occurred</p> <p>(1) Minor (2) Major (9) Unknown</p>	<p>31. Origin of Fire <input checked="" type="checkbox"/></p> <p>(0) No fire (1) Vehicle exterior (front, side, back, top) (2) Exhaust system (3) Fuel tank (and other fuel retention system parts) (4) Engine compartment (5) Cargo/trunk compartment (6) Instrument panel (7) Passenger compartment area (8) Other location (specify): _____</p> <p>(9) Unknown</p> <p>32. Type of Fuel Tank <input checked="" type="checkbox"/></p> <p>(0) No fuel tank (electrical vehicle) (1) Metallic (2) Non-metallic (9) Unknown</p>
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*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED AND WAS NOT AN AOPS ***
(I.E., GV09=0 OR 9 AND GV36=0), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.



INTERIOR VEHICLE FORM

GLAZING

Glazing Damage from Impact Forces

15. WS 2 16. LF 6 17. RF 0 18. LR 0 19. RR 0
20. BL 0 21. Roof 8 22. Other 8

- (0) No glazing damage from impact forces
- (1) Glazing in place and cracked from impact forces
- (2) Glazing in place and holed from impact forces
- (3) Glazing out-of-place (cracked or not) and not holed from impact forces
- (4) Glazing out-of-place and holed from impact forces
- (5) Glazing disintegrated from impact forces
- (6) Glazing removed prior to accident
- (7) Glazing removed after accident
- (8) No glazing
- (9) Unknown if damaged

Glazing Damage from Occupant Contact

23. WS 0 24. LF 0 25. RF 0 26. LR 0 27. RR 0
28. BL 0 29. Roof 0 30. Other 0

- (0) No occupant contact to glazing or no glazing
- (1) Glazing contacted by occupant but no glazing damage
- (2) Glazing in place and cracked by occupant contact
- (3) Glazing in place and holed by occupant contact
- (4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact
- (5) Glazing out-of-place by occupant contact and holed by occupant contact
- (6) Glazing disintegrated by occupant contact
- (7) Glazing removed by occupant contact
- (8) Unknown if contacted by occupant

If No Glazing Damage *And* No Occupant Contact or No Glazing, Then Code IV31 Through IV46 As 0

Type of Window/Windshield Glazing

31. WS 1 32. LF 2 33. RF 2 34. LR 2 35. RR 2
36. BL 2 37. Roof 0 38. Other 0

- (0) No glazing contact and no damage, or no glazing
- (1) AS-1 — Laminated
- (2) AS-2 — Tempered
- (3) AS-3 — Tempered-tinted
- (4) AS-14 — Glass/Plastic
- (5) Other (specify): _____
- (6) Unknown: _____

Window Precrash Glazing Status

39. WS 1 40. LF 2 41. RF 2 42. LR 2 43. RR 2
44. BL 1 45. Roof 0 46. Other 0

- (0) No glazing contact and no damage, or no glazing
- (1) Fixed
- (2) Closed
- (3) Partially opened
- (4) Fully opened
- (5) Unknown

Door, Tailgate or Hatch Opening

5. LF 3 6. RF 1 7. LR 1 8. RR 1 9. TG/H 0

- (0) No door/gate/hatch
- (1) Door/gate/hatch remained closed and operational
- (2) Door/gate/hatch came open during collision
- (3) Door/gate/hatch jammed shut
- (4) Other (specify): _____
- (5) Unknown: _____

LF DOOR FORCED OPEN POST-CRASH

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then code 0

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

- (0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision

- (1) Door operational (no damage)
- (2) Latch/striker failure due to damage
- (3) Hinge failure due to damage
- (4) Door structure failure due to damage
- (5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage
- (6) Latch/striker and hinge failure due to damage
- (7) Other failure (specify): _____
- (8) Unknown: _____

(9) Unknown: _____

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. 1	48. 06	49. 2	50. 3 (3")
2nd	51. 1	52. 10	53. 2	54. 3 (3")
3rd	55. 11	56. 27	57. 2	58. 3 (3")
4th	59. _____	60. _____	61. _____	62. _____
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

LOCATION OF INTRUSION

Front Seat	Fourth Seat
(11) Left	(41) Left
(12) Middle	(42) Middle
(13) Right	(43) Right
Second Seat	(97) Catastrophic
(21) Left	(98) Other enclosed area (specify)
(22) Middle	
(23) Right	
Third Seat	(99) Unknown
(31) Left	
(32) Middle	
(33) Right	

INTRUDING COMPONENT

Interior Components

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Door panel (side)
- (12) Roof (or convertible top)
- (13) Roof side rail
- (14) Windshield
- (15) Windshield header
- (16) Window frame
- (17) Floor pan (includes sill)
- (18) Backlight header
- (19) Front seat back
- (20) Second seat back
- (21) Third seat back
- (22) Fourth seat back
- (23) Fifth seat back
- (24) Seat cushion
- (25) Back door/panel (e.g., tailgate)
- (26) Other interior component (specify):

- (27) Side panel - forward of the A-pillar
- (28) Side panel - rear of the A-pillar

Exterior Components

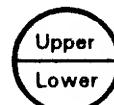
- (30) Hood
- (31) Outside surface of this vehicle (specify):
- (32) Other exterior object in the environment (specify):
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify):
- (99) Unknown

MAGNITUDE OF INTRUSION

- (1) ≥ 1 inch but < 3 inches
- (2) ≥ 3 inches but < 6 inches
- (3) ≥ 6 inches but < 12 inches
- (4) ≥ 12 inches but < 18 inches
- (5) ≥ 18 inches but < 24 inches
- (6) ≥ 24 inches
- (7) Catastrophic
- (9) Unknown

DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

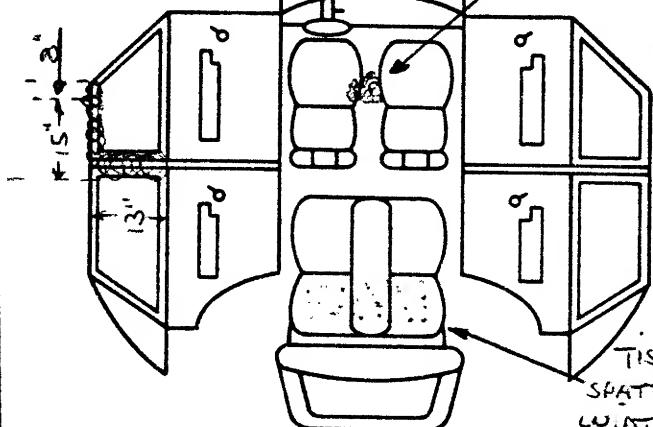
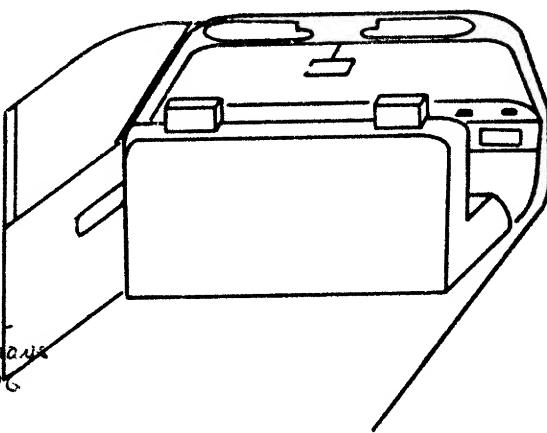
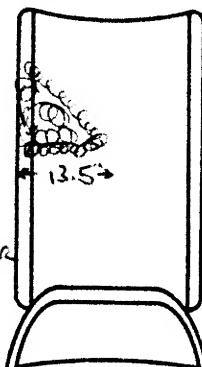
STEERING COLUMN		
87. Steering Column Type	2	92. Steering Rim/Spoke Deformation Code actual measured deformation to the nearest inch. (0) No steering rim deformation (1-5) Actual measured value (6) 6 inches or more (8) Observed deformation cannot be measured (9) Unknown
(1) Fixed column (2) Tilt column (3) Telescoping column (4) Tilt and telescoping column (8) Other column type (specify): (9) Unknown		0
88. Blank (This variable is left blank so that numbering consistency can be maintained with the 1988-91 CDS.)	X X	93. Location of Steering Rim/Spoke Deformation (00) No steering rim deformation
89. Blank (This variable is left blank so that numbering consistency can be maintained with the 1988-91 CDS.)	X X X	<p><i>Quarter Sections</i> (01) Section A (02) Section B (03) Section C (04) Section D</p> <p><i>Half Sections</i> (05) Upper half of rim/spoke (06) Lower half of rim/spoke (07) Left half of rim/spoke (08) Right half of rim/spoke</p> <p>(09) Complete steering wheel collapse (10) Undetermined location (99) Unknown</p>   
90. Blank (This variable is left blank so that numbering consistency can be maintained with the 1988-91 CDS.)	X X X	94. Odometer Reading 0 1 1,000
91. Blank (This variable is left blank so that numbering consistency can be maintained with the 1988-91 CDS.)	X X X	<p>1127 miles—Code mileage to the nearest 1,000 miles (000) No odometer (001) Less than 1,500 miles (300) 299,500 miles or more (999) Unknown</p> <p>Source: _____</p>
		95. Instrument Panel Damage from Occupant Contact? (0) No (1) Yes (9) Unknown
		96. Knee Bolsters Deformed from Occupant Contact? (0) No (1) Yes (8) Not present (9) Unknown
		97. Did Glove Compartment Door Open During Collision(s)? (0) No (1) Yes (8) Not present (9) Unknown

VEHICLE INTERIOR SKETCHES

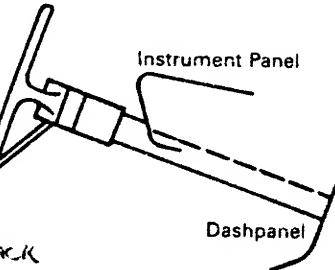
Note area of ejection/entrapment

TRIANGULAR AREA
OF TISSUE/BODY
FLUIDS ON LEFT
SIDERAIL, HEADLINER,
AND B-PILLAR AREA

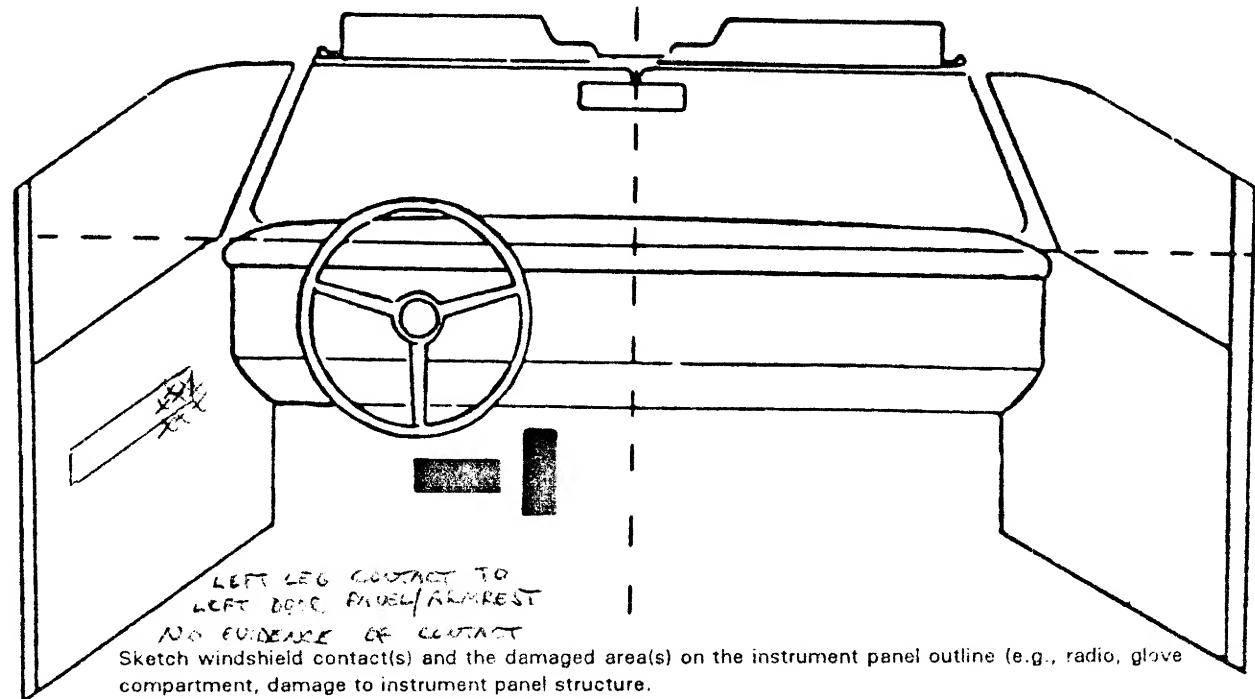
EXTENDS 8-1/2"
REARWARD OF A-PILLAR
13.5" INFRONT AUTO
HEADLINER, 13" DOWN
ONTO B-PILLAR



TISSUE/BODY FLUID
SPATTERS OVER FULL
WIDTH OF REAR SEAT BACK



TISSUE AND BLOOD ON
AIR BAG (SEE APPENDIX B)



LEFT LEG CONTACT TO
LEFT BONE, FLOOR/ARMREST

NO EVIDENCE OF CONTACT

Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).

Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.

Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	45	1	(S) FOREARM	TISSUE / BLOCK	1
B	20/21	1	(D) KNEE/LEG	NO EVIDENCE OF CONTACT	1
C					
D					
E					
F					
G					
H					
I					
J					
K					
L					
M					
N					

CODES FOR INTERIOR COMPONENTS

FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)
- (16) Other front object (specify): _____

LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A pillar
- (23) Left B pillar
- (24) Other left pillar (specify): _____
- (25) Left side window glass or frame

- (26) Left side window glass including one or more of the following: frame, window sill, A pillar, B pillar, or roof side rail.
- (27) Other left side object (specify): _____
- (28) Left side window sill

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A pillar
- (33) Right B pillar
- (34) Other right pillar (specify): _____
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A pillar, B pillar, or roof side rail.
- (37) Other right side object (specify): _____
- (38) Right side window sill

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify): _____
- (44) Head restraint system
- (45) Air bag
- (46) Other occupants (specify): _____
- (47) Interior loose objects

- (48) Child safety seat (specify): _____

- (49) Other interior object (specify): _____

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): _____

CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

AIR BAGS

		Left	Right
E I R S T	Availability/Function	<input checked="" type="radio"/>	<input type="radio"/>
	Deployment	<input type="radio"/>	<input checked="" type="radio"/>
	Failure	<input type="radio"/>	<input checked="" type="radio"/>
Air Bag System Availability/Function	Air Bag System Deployment	Did Air Bag System Fail?	
(0) Not equipped/not available	(0) Not equipped/not available	(0) Not equipped/not available	
(1) Air bag	(1) Air bag deployed during accident (as a result of impact)	(1) No	
<i>Non-functional</i>	(2) Air bag deployed inadvertently just prior to accident	(2) Yes (specify):	
(2) Air bag disconnected (specify):	(3) Air bag deployed, accident sequence undetermined	(9) Unknown	
(3) Air bag not reinstalled	(4) Nondeployed		
(9) Unknown	(5) Unknown if deployed		
	(6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)		
	(9) Unknown		

AUTOMATIC BELTS

		Left	Right
F I R S T	Availability/Function	<input type="radio"/>	<input type="radio"/>
	Use	<input type="radio"/>	<input type="radio"/>
	Type	<input type="radio"/>	<input type="radio"/>
	Proper Use	<input type="radio"/>	<input type="radio"/>
	Failure Modes	<input type="radio"/>	<input type="radio"/>
Automatic (Passive) Belt System			
Availability/Function			
(0) Not equipped/not available (1) 2 point automatic belts (2) 3 point automatic belts (3) Automatic belts - type unknown			
<i>Non-functional</i>			
(4) Automatic belts destroyed or rendered inoperative (9) Unknown			
Automatic (Passive) Belt System Use			
(0) Not equipped/not available/destroyed or rendered inoperative (1) Automatic belt in use (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (3) Automatic belt use unknown (9) Unknown			
Automatic (Passive) Belt System Type			
(0) Not equipped/not available (1) Non-motorized system (2) Motorized system (3) Unknown			
Proper Use of Automatic (Passive) Belt System			
(0) Not equipped/not available/not used (1) Automatic belt used properly (2) Automatic belt used properly with child safety seat			
Automatic Belt Used Improperly			
(3) Automatic shoulder belt worn under arm (4) Automatic shoulder belt worn behind back (5) Automatic belt worn around more than one person (6) Lap portion of automatic belt worn on abdomen (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):			
(8) Other improper use of automatic belt system (specify): _____			
(9) Unknown			
Automatic (Passive) Belt Failure Modes During Accident			
(0) Not equipped/not available/not in use (1) No automatic belt failure(s) (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify):			
(6) Broken retractor (7) Combination of above (specify): (8) Other automatic belt failure (specify):			
(9) Unknown			

MANUAL RESTRAINTS

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a Child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
F I R S T	Availability	4	3	4
	Use	04	03	04
	Failure Modes	1	1	1
S E C O N D	Availability	4	3	4
	Use REAR SEAT NOT OCCUPIED	—	—	—
	Failure Modes OCCUPIED	—	—	—
T H I R D	Availability			
	Use			
	Failure Modes			
O T H E R	Availability			
	Use			
	Failure Modes			

Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): _____

(9) Unknown _____

Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify): _____
- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown

(08) Other belt used (specify): _____

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat - type unknown
- (18) Other belt used with child safety seat (specify): _____
- (99) Unknown if belt used

Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____
- (6) Broken retractor
- (7) Combination of above (specify): _____
- (8) Other manual belt failure (specify): _____
- (9) Unknown

CHILD SAFETY SEAT FIELD ASSESSMENT FORM

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

NOTE: USED

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

1. Type of Child Safety Seat

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify):

(8) Unknown child safety seat type
(9) Unknown if child safety seat used

2. Child Safety Seat Orientation

- (00) No child safety seat
- Designed for Rear Facing for This Age/Weight
- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify):

(09) Unknown orientation

Designed for Forward Facing for This Age/Weight

- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify):

(19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight

- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

3. Child Safety Seat Harness Usage

4. Child Safety Seat Shield Usage

5. Child Safety Seat Tether Usage

Note: Options Below Are Used for Variables 3-5.

- (00) No child safety seat

Not Designed with Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether

- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

6. Child Safety Seat Make/Model

(Specify make/model and occupant number)

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
F I R S T	Head Restraint Type/Damage	3	0	3
	Seat Type	06	06	06
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
S E C O N D	Head Restraint Type/Damage	04	0	03
	Seat Type	03	03	03
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
T H I R D	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
O T H E R	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			

Head Restraint Type/Damage by Occupant at This Occupant Position

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other Specify):

(9) Unknown

Seat Performance (this Occupant Position)

- (0) No seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed specify:
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify):

(7) Combination of above (specify):

(8) Other (specify):

(9) Unknown

Seat Type (this Occupant Position)

- (00) No seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify):

(10) Box mounted seat (i.e., van type)

(99) Unknown

Seat Orientation (this Occupant Position)

- (0) No seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify):

(9) Unknown

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

EJECTION No Yes

Describe indications of ejection and body parts involved in partial ejection(s):

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection (1) Complete ejection (1) Partial ejection (3) Ejection, Unknown degree (9) Unknown	(7) Roof (8) Other area (e.g., back of pickup, etc.) (specify): <hr/> (9) Unknown	(5) Integral structure (8) Other medium (specify): <hr/> (9) Unknown
Ejection Area (1) Windshield (2) Left front (3) Right front (4) Left rear (5) Right rear (6) Rear	Ejection Medium (1) Door/hatch/tailgate (2) Nonfixed roof structure (3) Fixed glazing (4) Nonfixed glazing (specify): <hr/>	Medium Status (Immediately Prior to Impact) (1) Open (2) Closed (3) Integral structure (9) Unknown

ENTRAPMENT No Yes

Describe entrapment mechanism:

Component(s):

(Note in vehicle interior diagram)

APPENDIX E

NASS Occupant Forms

(Air Bag Vehicle)



U.S. Department of Transportation

National Highway Traffic Safety
Administration

OCCUPANT ASSESSMENT FORM

Form Approved
O.M.B. No. 2127-0021NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number _____

2. Case Number - Stratum 9 2 - 2 2

3. Vehicle Number 0 1

4. Occupant Number 0 1

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 73
Code actual age at time of accident.
(00) Less than one year old (specify by month):
(97) 97 years and older
(99) Unknown

6. Occupant's Sex 2
(1) Male
(2) Female
(9) Unknown

7. Occupant's Height (4'11") 59"
Code actual height to the nearest inch.
(99) Unknown

8. Occupant's Weight 125
Code actual weight to the nearest pounds.
(999) Unknown

9. Occupant's Role 1
(1) Driver
(2) Passenger
(9) Unknown

10. Occupant's Seat Position 11
Front Seat
(11) Left side
(12) Middle
(13) Right side
(14) Other (specify):
(15) On or in the lap of another occupant

Second Seat
(21) Left side
(22) Middle
(23) Right side
(24) Other (specify):
(25) On or in the lap of another occupant

Third Seat
(31) Left side
(32) Middle
(33) Right side
(34) Other (specify):
(35) On or in the lap of another occupant

Fourth Seat
(41) Left side
(42) Middle
(43) Right side
(44) Other (specify):
(45) On or in the lap of another occupant

(97) In or on unenclosed area
(98) Other seat (specify):
(99) Unknown

11. Occupant Posture
(0) Normal posture
(1) Abnormal posture (specify):
(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection 0
(0) No ejection
(1) Complete ejection
(2) Partial ejection
(3) Ejection, unknown degree
(9) Unknown

13. Ejection Area 0
(0) No ejection
(1) Windshield
(2) Left front
(3) Right front
(4) Left rear
(5) Right rear
(6) Rear
(7) Roof
(8) Other area (e.g., back of pickup, etc.)
(specify):
(9) Unknown

14. Ejection Medium 0
(0) No ejection
(1) Door/hatch/tailgate
(2) Nonfixed roof structure
(3) Fixed glazing
(4) Nonfixed glazing (specify):
(5) Integral structure
(8) Other medium (specify):
(9) Unknown

15. Medium Status (Immediately Prior To Impact) 0
(0) No ejection
(1) Open
(2) Closed
(3) Integral structure
(9) Unknown

16. Entrapment
(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)
(0) Not entrapped
(1) Entrapped
(9) Unknown

RESTRAINT SYSTEM AND SEAT EVALUATION	
17. Manual (Active) Belt System Availability	4
(0) None available	
(1) Belt removed/destroyed	
(2) Shoulder belt	
(3) Lap belt	
(4) Lap and shoulder belt	
(5) Belt available—type unknown	
<i>Integral Belt Partially Destroyed</i>	
(6) Shoulder belt (lap belt destroyed/removed)	
(7) Lap belt (shoulder belt destroyed/removed)	
(8) Other belt (specify):	
(9) Unknown	
18. Manual (Active) Belt System Use	04
(00) None used, not available, or belt removed/destroyed	
(01) Inoperative (specify):	
(02) Shoulder belt	
(03) Lap belt	
(04) Lap and shoulder belt	
(05) Belt used—type unknown	
(08) Other belt used (specify):	
(12) Shoulder belt used with child safety seat	
(13) Lap belt used with child safety seat	
(14) Lap and shoulder belt used with child safety seat	
(15) Belt used with child safety seat—type unknown	
(18) Other belt used with child safety seat (specify):	
(99) Unknown if belt used	
19. Proper Use of Manual (Active) Belts	1
(0) None used or not available	
(1) Belt used properly	
(2) Belt used properly with child safety seat	
<i>Belt Used Improperly</i>	
(3) Shoulder belt worn under arm	
(4) Shoulder belt worn behind back or seat	
(5) Belt worn around more than one person	
(6) Lap belt worn on abdomen	
(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):	
(8) Other improper use of manual belt system (specify):	
(9) Unknown	
20. Manual (Active) Belt Failure Modes During Accident	1
(0) No manual belt used	
(1) No manual belt failure(s)	
(2) Torn webbing (stretched webbing not included)	
(3) Broken buckle or latchplate	
(4) Upper anchorage separated	
(5) Other anchorage separated (specify):	
(6) Broken retractor	
(7) Combination of above (specify):	
(8) Other manual belt failure (specify):	
(9) Unknown	
21. Air Bag System Availability/Function	1
(0) Not equipped/not available	
(1) Air bag	
<i>Non-functional</i>	
(2) Air bag disconnected (specify):	
(3) Air bag not reinstalled	
(9) Unknown	
22. Air Bag System Deployment	1
(0) Not equipped/not available	
(1) Air bag deployed during accident (as a result of impact)	
(2) Air bag deployed inadvertently just prior to accident	
(3) Air bag deployed, accident sequence undetermined	
(4) Nondeployed	
(5) Unknown if deployed	
(6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)	
(9) Unknown	
23. Did Air Bag System Fail?	1
(0) Not equipped/not available	
(1) No	
(2) Yes (specify):	
(9) Unknown	
Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts	
24. Police Reported Restraint Use	4
(0) None used	
(1) Police did not indicate restraint use	
(2) Shoulder belt	
(3) Lap belt	
(4) Lap and shoulder belt	
(5) Belt used, type not specified	
(6) Child safety seat	
(7) Other or automatic restraint (specify):	
(8) Restrained, type unknown	
(9) Police indicated "unknown"	
25. Head Restraint Type/Damage by Occupant at This Occupant Position	3
(0) No head restraints	
(1) Integral—no damage	
(2) Integral—damaged during accident	
(3) Adjustable—no damage	
(4) Adjustable—damaged during accident	
(5) Add-on—no damage	
(6) Add-on—damaged during accident	
(8) Other (specify):	
(9) Unknown	

<p>26. Seat Type (this Occupant Position) <u>06</u></p> <p>(00) Occupant not seated or no seat (01) Bucket (02) Bucket with folding back (03) Bench (04) Bench with separate back cushions (05) Bench with folding back(s) (06) Split bench with separate back cushions (07) Split bench with folding back(s) (08) Pedestal (i.e., column supported) (09) Other seat type (specify): (10) Box mounted seat (i.e., van type) (99) Unknown</p>	<p>30. Child Safety Seat Orientation <u>00</u></p> <p><i>Designed for Rear Facing for This Age/Weight</i> (01) Rear facing (02) Forward facing (08) Other orientation (specify): (09) Unknown orientation</p> <p><i>Designed For Forward Facing for This Age/Weight</i> (11) Rear facing (12) Forward facing (18) Other orientation (specify): (19) Unknown orientation</p> <p><i>Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight</i> (21) Rear facing (22) Forward facing (28) Other orientation (specify): (29) Unknown orientation</p> <p>(99) Unknown if child safety seat used</p>
<p>27. Seat Performance (this Occupant Position) <u>1</u></p> <p>(0) Occupant not seated or no seat (1) No seat performance failure(s) (2) Seat adjusters failed (3) Seat back folding locks or "seat back" failed (4) Seat track/anchors failed (5) Deformed by impact of occupant (6) Deformed by passenger compartment intrusion (specify): (7) Combination of above (specify): (8) Other (specify): (9) Unknown</p>	<p>31. Child Safety Seat Harness Usage <u>00</u></p> <p>32. Child Safety Seat Shield Usage <u>00</u></p> <p>33. Child Safety Seat Tether Usage <u>00</u> Note: Options below applicable to Variables OA31-OA33.</p> <p>(00) No child safety seat</p> <p><i>Not Designed With Harness/Shield/Tether</i> (01) After market harness/shield/tether added, not used (02) After market harness/shield/tether used (03) Child safety seat used, but no after market harness/shield/tether added (09) Unknown if harness/shield/tether added or used</p> <p><i>Designed With Harness/Shield/Tether</i> (11) Harness/shield/tether not used (12) Harness/shield/tether used (19) Unknown if harness/shield/tether used</p> <p><i>Unknown If Designed With Harness/Shield/Tether</i> (21) Harness/shield/tether not used (22) Harness/shield/tether used (29) Unknown if harness/shield/tether used</p> <p>(99) Unknown if child safety seat used</p>
<p>28. Child Safety Seat Make/Model <u>000</u></p> <p>(000) No child safety seat Applicable codes are found in your NASS CDS Data Collection, Coding and Editing (950) Built-in child safety seat (997) Other make/model (specify): (998) Unknown make/model (999) Unknown if child safety seat used</p> <p>29. Type of Child Safety Seat <u>0</u></p> <p>(0) No child safety seat (1) Infant seat (2) Toddler seat (3) Convertible seat (4) Booster seat (7) Other type child safety seat (specify): (8) Unknown child safety seat type (9) Unknown if child safety seat used</p>	

INJURY CONSEQUENCES

34. Injury Severity (Police Rating)

3

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

35. Treatment - Mortality

3

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (8) Treatment - other (specify):
- (9) Unknown

36. Type Of Medical Facility (for Initial Treatment)

2

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):
- (9) Unknown

37. Hospital Stay

13

- (00) Not Hospitalized
- Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

38. Working Days Lost

00

Code the number of days (up through 60) that the occupant lost from work due to the accident

- (00) No working days lost
- (61) 61 days or more **RETIRED**
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

39. Time to Death

00

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal
- (96) Fatal - ruled disease
- (99) Unknown

40. 1st Medically Reported Cause of Death

00

41. 2nd Medically Reported Cause of Death

00

42. 3rd Medically Reported Cause of Death

00

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes
- (97) Other result (specify):
- (99) Unknown

43. Number of Recorded Injuries for This Occupant

07

Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries
- (97) Injured, details unknown
- (99) Unknown if injured

AUTOMATIC BELT SYSTEM**44. Automatic (Passive) Belt System Availability/****Function**

(0) Not equipped/not available
 (1) 2 point automatic belts
 (2) 3 point automatic belts
 (3) Automatic belts - type unknown

Non-functional

(4) Automatic belts destroyed or rendered inoperative
 (9) Unknown

45. Automatic (Passive) Belt System Use

(0) Not equipped/not available/destroyed or rendered inoperative
 (1) Automatic belt in use
 (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
 (3) Automatic belt use unknown
 (9) Unknown

46. Automatic (Passive) Belt System Type

(0) Not equipped/not available
 (1) Non-motorized system
 (2) Motorized system
 (9) Unknown

47. Proper Use of Automatic (Passive Belt System)

(0) Not equipped/not available/not used
 (1) Automatic belt used properly
 (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

(3) Automatic shoulder belt worn under arm
 (4) Automatic shoulder belt worn behind back
 (5) Automatic belt worn around more than one person
 (6) Lap portion of automatic belt worn on abdomen
 (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):
 (8) Other improper use of automatic belt system (specify):
 (9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident

(0) Not equipped/not available/not in use
 (1) No automatic belt failure(s)
 (2) Torn webbing (stretched webbing not included)
 (3) Broken buckle or latchplate
 (4) Upper anchorage separated
 (5) Other anchorage separated (specify):
 (6) Broken retractor
 (7) Combination of above (specify):
 (8) Other automatic belt failure (specify):
 (9) Unknown

49. Seat Orientation (this Occupant Position)

(0) Occupant not seated or no seat
 (1) Forward facing seat
 (2) Rear facing seat
 (3) Side facing seat (inward)
 (4) Side facing seat (outward)
 (8) Other (specify):
 (9) Unknown

TRAUMA DATA**50. Glasgow Coma Scale (GCS) Score**

(at Medical Facility) 0 2
 (00) Not injured
 (01) Injured - not treated at medical facility
 (02) No GCS Score at medical facility
 (03-15) Code the actual value of the initial GCS Score recorded at medical facility.
 (97) Injured, details unknown
 (99) Unknown if injured

51. Was the Occupant Given Blood?

(1) No - blood not given
 (2) Yes - blood given (specify units):
 (9) Unknown if blood given

52. Arterial Blood Gases (ABG) - HCO₃

(00) Not injured 2 8
 (01) Injured, ABGs not measured or reported
 (02-50) Code the actual value of the HCO₃
 (96) ABGs reported, HCO₃ unknown
 (97) Injured, details unknown
 (99) Unknown if injured

UPDATE CANDIDATE? NO [✓] YES []

OCCUPANT INJURY FORM INCLUDED WITH INITIAL SUBMISSION? NO [] YES [✓]

*** STOP HERE ***
IF THERE ARE NO RECORDED INJURIES
 (I.E., OA43 = 00,97,99)



OCCUPANT INJURY FORM

1. Primary Sampling Unit Number	3. Vehicle Number
2. Case Number - Stratum	4. Occupant Number

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

Source of Injury Data	O.I.C.-A.I.S					Injury Source	Confidence Level	Direct/Indirect Injury	Occupant Area Intrusion No.	
	Body Region	Aspect	Lesion	System Organ	A.I.S. Severity					
1st	5. <u>2</u>	6. <u>R</u>	7. <u>R</u>	8. <u>E</u>	9. <u>S</u>	10. <u>3</u>	11. <u>45</u>	12. <u>1</u>	13. <u>1</u>	14. <u>00</u>
2nd	15. <u>2</u>	16. <u>R</u>	17. <u>R</u>	18. <u>F</u>	19. <u>S</u>	20. <u>3</u>	21. <u>45</u>	22. <u>1</u>	23. <u>1</u>	24. <u>00</u>
3rd	25. <u>2</u>	26. <u>R</u>	27. <u>R</u>	28. <u>F</u>	29. <u>S</u>	30. <u>3</u>	31. <u>45</u>	32. <u>1</u>	33. <u>1</u>	34. <u>00</u>
4th	35. <u>2</u>	36. <u>R</u>	37. <u>R</u>	38. <u>V</u>	39. <u>I</u>	40. <u>1</u>	41. <u>45</u>	42. <u>1</u>	43. <u>1</u>	44. <u>00</u>
5th	45. <u>2</u>	46. <u>E</u>	47. <u>R</u>	48. <u>F</u>	49. <u>S</u>	50. <u>2</u>	51. <u>45</u>	52. <u>1</u>	53. <u>1</u>	54. <u>00</u>
6th	55. <u>2</u>	56. <u>W</u>	57. <u>R</u>	58. <u>E</u>	59. <u>S</u>	60. <u>1</u>	61. <u>45</u>	62. <u>1</u>	63. <u>1</u>	64. <u>00</u>
7th	65. <u>7</u>	66. <u>R</u>	67. <u>L</u>	68. <u>C</u>	69. <u>I</u>	70. <u>1</u>	71. <u>20</u>	72. <u>1</u>	73. <u>1</u>	74. <u>02</u>
8th	75. <u> </u>	76. <u> </u>	77. <u> </u>	78. <u> </u>	79. <u> </u>	80. <u> </u>	81. <u> </u>	82. <u> </u>	83. <u> </u>	84. <u> </u>
9th	85. <u> </u>	86. <u> </u>	87. <u> </u>	88. <u> </u>	89. <u> </u>	90. <u> </u>	91. <u> </u>	92. <u> </u>	93. <u> </u>	94. <u> </u>
10th	95. <u> </u>	96. <u> </u>	97. <u> </u>	98. <u> </u>	99. <u> </u>	100. <u> </u>	101. <u> </u>	102. <u> </u>	103. <u> </u>	104. <u> </u>

OCCUPANT INJURY DATA

AGE 73.....
SEX Female
WT. 125 lbs.
HT. 59"

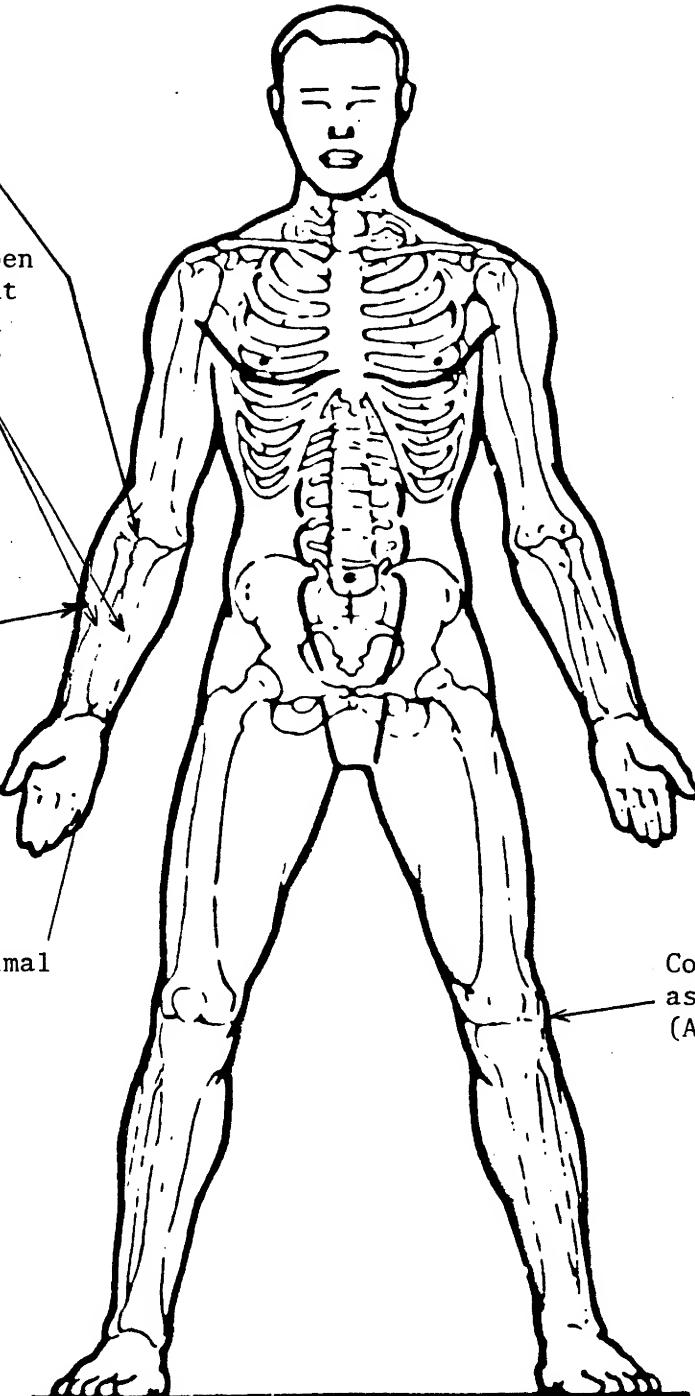
Fracture of the right olecranon (AIS-2), upper air bag module cover flap/air bag

Multiple segmental open fractures of the right radius and ulna, with fractures of both the distal and proximal ulna (AIS-3), upper air bag module cover flap/air bag

Circumferential degloving laceration involving the skin and subcutaneous tissue down to the muscle layer involving approximately 340° of the right forearm (AIS-2), upper air bag module cover flap/air bag

Fracture of the proximal phalanx of the right 5th digit (AIS-1), air bag

Contusion of the lateral aspect of the left knee (AIS-1), left door panel



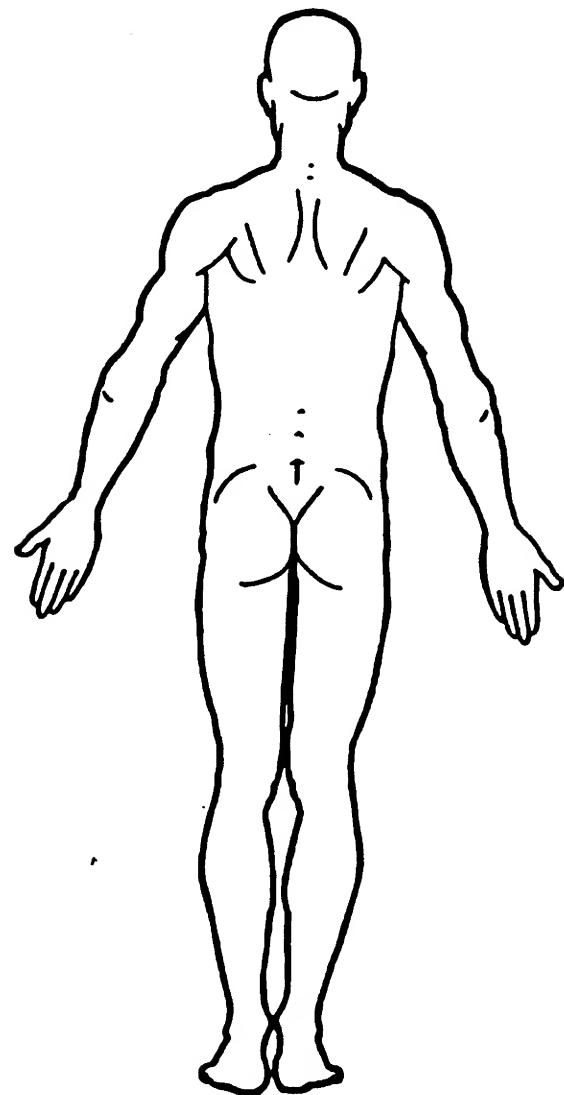
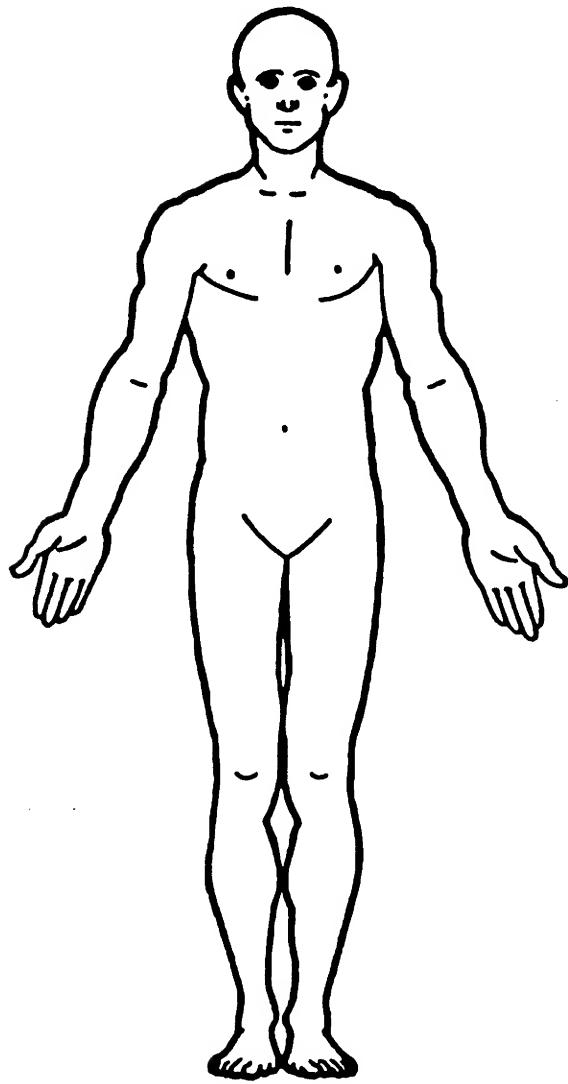
SOURCE OF INJURY DATA	
OFFICIAL	
(1) Autopsy records with or without hospital medical records	
(2) Hospital medical records other than emergency room (e.g., discharge summary)	
(3) Emergency room records only (including associated X-rays or other lab reports)	
(4) Private physician, walk-in or emergency clinic	
UNOFFICIAL	
(5) Lay coroner report	
(6) E.M.S. personnel	
(7) Interviewee	
(8) Other source (specify):	
(9) Police	
INJURY SOURCE	
FRONT	
(01) Windshield	
(02) Mirror	
(03) Sunvisor	
(04) Steering wheel rim	
(05) Steering wheel hub/spoke	
(06) Steering wheel (combination of codes 04 and 05)	
(07) Steering column, transmission selector lever, other attachment	
(08) Add on equipment (e.g., CB, tape deck, air conditioner)	
(09) Left instrument panel and below	
(10) Center instrument panel and below	
(11) Right instrument panel and below	
(12) Glove compartment door	
(13) Knee bolster	
(14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror, or steering assembly (driver side only)	
(15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)	
(16) Other front object (specify):	
LEFT SIDE	
(20) Left side interior surface, excluding hardware or armrests	
(21) Left side hardware or armrest	
(22) Left A pillar	
(23) Left B pillar	
(24) Other left pillar (specify):	
(25) Left side window glass or frame	
RIGHT SIDE	
(30) Right side interior surface, excluding hardware or armrests	
(31) Right side hardware or armrest	
(32) Right A pillar	
(33) Right B pillar	
(34) Other right pillar (specify):	
(35) Right side window glass or frame	
(36) Right side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail	
(37) Other right side object (specify):	
(38) Right side window sill	
INTERIOR	
(40) Seat, back support	
(41) Belt restraint webbing/buckle	
(42) Belt restraint B-pillar attachment point	
(43) Other restraint system component (specify):	
(44) Head restraint system	
(45) Air bag	
(46) Other occupants (specify):	
(47) Interior loose objects	
(48) Child safety seat (specify):	
(49) Other interior object (specify):	
ROOF	
(50) Front header	
(51) Rear header	
(52) Roof left side rail	
(53) Roof right side rail	
(54) Roof or convertible top	
FLOOR	
(56) Floor (including toe pan)	
(57) Floor or console mounted transmission lever, including console	
(58) Parking brake handle	
(59) Foot controls including parking brake	
REAR	
(60) Backlight (rear window)	
EXTERIOR OF OCCUPANT'S VEHICLE	
(65) Hood	
(66) Outside hardware (e.g., outside mirror, antenna)	
(67) Other exterior surface or tires (specify):	
(68) Unknown exterior objects	
EXTERIOR OF OTHER MOTOR VEHICLE	
(70) Front bumper	
(71) Hood edge	
(72) Other front of vehicle (specify):	
(73) Hood	
(74) Hood ornament	
(75) Windshield, roof rail, A-pillar	
(76) Side surface	
(77) Side mirrors	
(78) Other side protrusions (specify):	
(79) Rear surface	
(80) Undercarriage	
(81) Tires and wheels	
(82) Other exterior of other motor vehicle (specify):	
(83) Unknown exterior of other motor vehicle	
OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT	
(84) Ground	
(85) Other vehicle or object (specify):	
(86) Unknown vehicle or object	
NONCONTACT INJURY	
(90) Fire in vehicle	
(91) Flying glass	
(92) Other noncontact injury source (specify):	
(93) Air bag exhaust gases	
(97) Injured, unknown source	
INJURY SOURCE CONFIDENCE LEVEL	
(1) Certain	
(2) Probable	
(3) Possible	
(9) Unknown	
DIRECT/INDIRECT INJURY	
(1) Direct contact injury	
(2) Indirect contact injury	
(3) Noncontact injury	
(7) Injured, unknown source	

OCCUPANT INJURY CLASSIFICATION

O.I.C. Body Region	Aspect of Injury	Fracture	Liver
(M) Abdomen	(A) Anterior—front	(Z) Fracture and dislocation	(M) Muscles
(Q) Ankle—foot	(B) Bilateral (rib fracture only)	(U) Injured, unknown lesion	(N) Nervous system
(A) Arm (upper)	(C) Central	(L) Laceration	(P) Pulmonary—lungs
(B) Back-thoracolumbar spine	(II) Inferior—lower	(O) Other	(R) Respiratory
(C) Chest	(U) Injured, unknown aspect	(P) Perforation, puncture	(S) Skeletal
(E) Elbow	(L) Left	(R) Rupture	(C) Spinal cord
(F) Face	(P) Posterior—back	(S) Sprain	(Q) Spleen
(R) Forearm	(R) Right	(T) Strain	(T) Thyroid, other endocrine gland
(H) Head—skull	(S) Superior—upper	(E) Total severance, transection	(V) Vertebrae
(U) Injured, unknown region	(W) Whole region	System/Organ	Abbreviated Injury Scale
(K) Knee	Lesion	(W) All systems in region	(1) Minor injury
(L) Leg (lower)	(A) Abrasion	(A) Arteries—veins	(2) Moderate injury
(Y) Lower limb(s) (whole or unknown part)	(M) Amputation	(B) Brain	(3) Serious injury
(N) Neck—cervical spine	(V) Avulsion	(D) Digestive	(4) Severe injury
(P) Pelvic—hip	(B) Burn	(E) Ears	(5) Critical injury
(S) Shoulder	(K) Concussion	(O) Eye	(6) Maximum (untreatable)
(T) Thigh	(C) Contusion	(H) Heart	(7) Injured, unknown severity
(X) Upper limb(s) (whole or unknown part)	(N) Crush	(U) Injured, unknown system	
(O) Whole body	(G) Detachment, separation	(I) Integumentary	
(W) Wrist—hand	(D) Dislocation	(J) Joints	
		(K) Kidneys	

OFFICIAL INJURY DATA – SOFT TISSUE INJURIES

Indicate the Location, Lesion, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number _____
2. Case Number - Stratum 9 2 - 2 2
3. Vehicle Number 0 1
4. Occupant Number 0 2

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 0 4
Code actual age at time of accident.
(00) Less than one year old (specify by month):
(97) 97 years and older
(99) Unknown
6. Occupant's Sex 1
(1) Male
(2) Female
(9) Unknown
7. Occupant's Height 4 2
Code actual height to the nearest inch.
(99) Unknown
8. Occupant's Weight 0 3 8
Code actual weight to the nearest pounds.
(999) Unknown
9. Occupant's Role 2
(1) Driver
(2) Passenger
(9) Unknown
10. Occupant's Seat Position 1 2
Front Seat
(11) Left side
(12) Middle
(13) Right side
(14) Other (specify):
(15) On or in the lap of another occupant

Second Seat
(21) Left side
(22) Middle
(23) Right side
(24) Other (specify):
(25) On or in the lap of another occupant

Third Seat
(31) Left side
(32) Middle
(33) Right side
(34) Other (specify):
(35) On or in the lap of another occupant

Fourth Seat
(41) Left side
(42) Middle
(43) Right side
(44) Other (specify):
(45) On or in the lap of another occupant

(97) In or on unenclosed area
(98) Other seat (specify):
(99) Unknown

11. Occupant Posture 0
(0) Normal posture
(1) Abnormal posture (specify):
(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection 0
(0) No ejection
(1) Complete ejection
(2) Partial ejection
(3) Ejection, unknown degree
(9) Unknown
13. Ejection Area 0
(0) No ejection
(1) Windshield
(2) Left front
(3) Right front
(4) Left rear
(5) Right rear
(6) Rear
(7) Roof
(8) Other area (e.g., back of pickup, etc.)
(specify):
(9) Unknown
14. Ejection Medium 0
(0) No ejection
(1) Door/hatch/tailgate
(2) Nonfixed roof structure
(3) Fixed glazing
(4) Nonfixed glazing (specify):
(5) Integral structure
(8) Other medium (specify):
(9) Unknown
15. Medium Status (Immediately Prior To Impact) 0
(0) No ejection
(1) Open
(2) Closed
(3) Integral structure
(9) Unknown
16. Entrapment 0
(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)
(0) Not entrapped
(1) Entrapped
(9) Unknown

RESTRAINT SYSTEM AND SEAT EVALUATION	
17. Manual (Active) Belt System Availability	<u>3</u>
(0) None available	
(1) Belt removed/destroyed	
(2) Shoulder belt	
(3) Lap belt	
(4) Lap and shoulder belt	
(5) Belt available—type unknown	
<i>Integral Belt Partially Destroyed</i>	
(6) Shoulder belt (lap belt destroyed/removed)	
(7) Lap belt (shoulder belt destroyed/removed)	
(8) Other belt (specify):	
(9) Unknown	
18. Manual (Active) Belt System Use	<u>03</u>
(00) None used, not available, or belt removed/destroyed	
(01) Inoperative (specify):	
(02) Shoulder belt	
(03) Lap belt	
(04) Lap and shoulder belt	
(05) Belt used—type unknown	
(08) Other belt used (specify):	
(12) Shoulder belt used with child safety seat	
(13) Lap belt used with child safety seat	
(14) Lap and shoulder belt used with child safety seat	
(15) Belt used with child safety seat—type unknown	
(18) Other belt used with child safety seat (specify):	
(99) Unknown if belt used	
19. Proper Use of Manual (Active) Belts	<u>1</u>
(0) None used or not available	
(1) Belt used properly	
(2) Belt used properly with child safety seat	
<i>Belt Used Improperly</i>	
(3) Shoulder belt worn under arm	
(4) Shoulder belt worn behind back or seat	
(5) Belt worn around more than one person	
(6) Lap belt worn on abdomen	
(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):	
(8) Other improper use of manual belt system (specify):	
(9) Unknown	
20. Manual (Active) Belt Failure Modes	<u>1</u>
During Accident	
(0) No manual belt used	
(1) No manual belt failure(s)	
(2) Torn webbing (stretched webbing not included)	
(3) Broken buckle or latchplate	
(4) Upper anchorage separated	
(5) Other anchorage separated (specify):	
(6) Broken retractor	
(7) Combination of above (specify):	
(8) Other manual belt failure (specify):	
(9) Unknown	
21. Air Bag System Availability/Function	<u>0</u>
(0) Not equipped/not available	
(1) Air bag	
<i>Non-functional</i>	
(2) Air bag disconnected (specify):	
(3) Air bag not reinstalled	
(9) Unknown	
22. Air Bag System Deployment	<u>0</u>
(0) Not equipped/not available	
(1) Air bag deployed during accident (as a result of impact)	
(2) Air bag deployed inadvertently just prior to accident	
(3) Air bag deployed, accident sequence undetermined	
(4) Nondeployed	
(5) Unknown if deployed	
(6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)	
(9) Unknown	
23. Did Air Bag System Fail?	<u>0</u>
(0) Not equipped/not available	
(1) No	
(2) Yes (specify):	
(9) Unknown	
Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts	
24. Police Reported Restraint Use	<u>4</u>
(0) None used	
(1) Police did not indicate restraint use	
(2) Shoulder belt	
(3) Lap belt	
(4) Lap and shoulder belt <i>BOTH, ONLY LAP WAS AVAILABLE</i>	
(5) Belt used, type not specified	
(6) Child safety seat	
(7) Other or automatic restraint (specify):	
(8) Restrained, type unknown	
(9) Police indicated "unknown"	
25. Head Restraint Type/Damage by Occupant at This Occupant Position	<u>0</u>
(0) No head restraints	
(1) Integral—no damage	
(2) Integral—damaged during accident	
(3) Adjustable—no damage	
(4) Adjustable—damaged during accident	
(5) Add-on—no damage	
(6) Add-on—damaged during accident	
(8) Other (specify):	
(9) Unknown	

<p>26. Seat Type (this Occupant Position) <u>06</u></p> <p>(00) Occupant not seated or no seat (01) Bucket (02) Bucket with folding back (03) Bench (04) Bench with separate back cushions (05) Bench with folding back(s) (06) Split bench with separate back cushions (07) Split bench with folding back(s) (08) Pedestal (i.e., column supported) (09) Other seat type (specify): (10) Box mounted seat (i.e., van type) (99) Unknown</p> <p>27. Seat Performance (this Occupant Position) <u>1</u></p> <p>(0) Occupant not seated or no seat (1) No seat performance failure(s) (2) Seat adjusters failed (3) Seat back folding locks or "seat back" failed (4) Seat track/anchors failed (5) Deformed by impact of occupant (6) Deformed by passenger compartment intrusion (specify): (7) Combination of above (specify): (8) Other (specify): (9) Unknown</p>	<p>30. Child Safety Seat Orientation <u>00</u></p> <p>(00) No child safety seat</p> <p><i>Designed for Rear Facing for This Age/Weight</i> (01) Rear facing (02) Forward facing (08) Other orientation (specify): (09) Unknown orientation</p> <p><i>Designed For Forward Facing for This Age/Weight</i> (11) Rear facing (12) Forward facing (18) Other orientation (specify): (19) Unknown orientation</p> <p><i>Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight</i> (21) Rear facing (22) Forward facing (28) Other orientation (specify): (29) Unknown orientation</p> <p>(99) Unknown if child safety seat used</p>
<p>CHILD SAFETY SEAT</p> <p>28. Child Safety Seat Make/Model <u>000</u></p> <p>(000) No child safety seat Applicable codes are found in your NASS CDS Data Collection, Coding and Editing (950) Built-in child safety seat (997) Other make/model (specify): (998) Unknown make/model (999) Unknown if child safety seat used</p> <p>29. Type of Child Safety Seat <u>0</u></p> <p>(0) No child safety seat (1) Infant seat (2) Toddler seat (3) Convertible seat (4) Booster seat (7) Other type child safety seat (specify): (8) Unknown child safety seat type (9) Unknown if child safety seat used</p>	<p>31. Child Safety Seat Harness Usage <u>00</u></p> <p>32. Child Safety Seat Shield Usage <u>00</u></p> <p>33. Child Safety Seat Tether Usage <u>00</u></p> <p>Note: Options below applicable to Variables OA31-OA33.</p> <p>(00) No child safety seat</p> <p><i>Not Designed With Harness/Shield/Tether</i> (01) After market harness/shield/tether added, not used (02) After market harness/shield/tether used (03) Child safety seat used, but no after market harness/shield/tether added (09) Unknown if harness/shield/tether added or used</p> <p><i>Designed With Harness/Shield/Tether</i> (11) Harness/shield/tether not used (12) Harness/shield/tether used (19) Unknown if harness/shield/tether used</p> <p><i>Unknown If Designed With Harness/Shield/Tether</i> (21) Harness/shield/tether not used (22) Harness/shield/tether used (29) Unknown if harness/shield/tether used</p> <p>(99) Unknown if child safety seat used</p>

INJURY CONSEQUENCES		
34. Injury Severity (Police Rating)	Q	38. Working Days Lost O O Code the number of days (up through 60) that the occupant lost from work due to the accident (00) No working days lost (61) 61 days or more (62) Fatally injured (97) Not working prior to accident (99) Unknown
(0) O - No injury (1) C - Possible injury (2) B - Nonincapacitating injury (3) A - Incapacitating injury (4) K - Killed (5) U - Injury, severity unknown (6) Died prior to accident (9) Unknown		
35. Treatment - Mortality	O	39. Time to Death O O Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60) (00) Not fatal (96) Fatal - ruled disease (99) Unknown
(0) No treatment (1) Fatal (2) Fatal - ruled disease		
<i>Nonfatal</i>		
(3) Hospitalization (4) Transported and released (5) Treatment at scene - nontransported (6) Treatment later (8) Treatment - other (specify):		
(9) Unknown		
36. Type Of Medical Facility (for Initial Treatment) O		40. 1st Medically Reported Cause of Death O O
(0) Not treated at a medical facility (1) Trauma center (2) Hospital (3) Medical clinic (4) Physician's office (5) Treatment later at medical facility (8) Other (specify):		41. 2nd Medically Reported Cause of Death O O
(9) Unknown		42. 3rd Medically Reported Cause of Death O O Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death (00) Not fatal or no additional causes (97) Other result (specify):
		(99) Unknown
37. Hospital Stay	O O	43. Number of Recorded Injuries for This Occupant O O Code the actual number of injuries recorded for this occupant. (00) No recorded injuries (97) Injured, details unknown (99) Unknown if injured
(00) Not Hospitalized _____ Code the number of days (up through 60) that the occupant stayed in hospital. (61) 61 days or more (99) Unknown		

AUTOMATIC BELT SYSTEM

44. Automatic (Passive) Belt System Availability/
Function
(0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts - type unknown

Non-functional

(4) Automatic belts destroyed or rendered inoperative
(9) Unknown

45. Automatic (Passive) Belt System Use
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
(3) Automatic belt use unknown
(9) Unknown

46. Automatic (Passive) Belt System Type
(0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

47. Proper Use of Automatic (Passive Belt System)
(0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

(3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):
(8) Other improper use of automatic belt system (specify):
(9) Unknown

48. Automatic (Passive) Belt Failure Modes

During Accident
(0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify):
(6) Broken retractor
(7) Combination of above (specify):
(8) Other automatic belt failure (specify):
(9) Unknown

49. Seat Orientation (this Occupant Position)

(0) Occupant not seated or no seat
(1) Forward facing seat
(2) Rear facing seat
(3) Side facing seat (inward)
(4) Side facing seat (outward)
(8) Other (specify):
(9) Unknown

TRAUMA DATA50. Glasgow Coma Scale (GCS) Score

(at Medical Facility)
(00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.
(97) Injured, details unknown
(99) Unknown if injured

51. Was the Occupant Given Blood?

(1) No - blood not given
(2) Yes - blood given
(specify units):
(9) Unknown if blood given

52. Arterial Blood Gases (ABG) - HCO₃

(00) Not injured
(01) Injured, ABGs not measured or reported
(02-50) Code the actual value of the HCO₃
(96) ABGs reported, HCO₃ unknown
(97) Injured, details unknown
(99) Unknown if injured

UPDATE CANDIDATE?

NO YES OCCUPANT INJURY FORM INCLUDED WITH INITIAL SUBMISSION? NO YES

*** STOP HERE ***
IF THERE ARE NO RECORDED INJURIES
(I.E., OA43 = 00,97,99)



OCCUPANT INJURY FORM

1. Primary Sampling Unit Number _____

3. Vehicle Number 01

2. Case Number - Stratum 92-22

4. Occupant Number 02

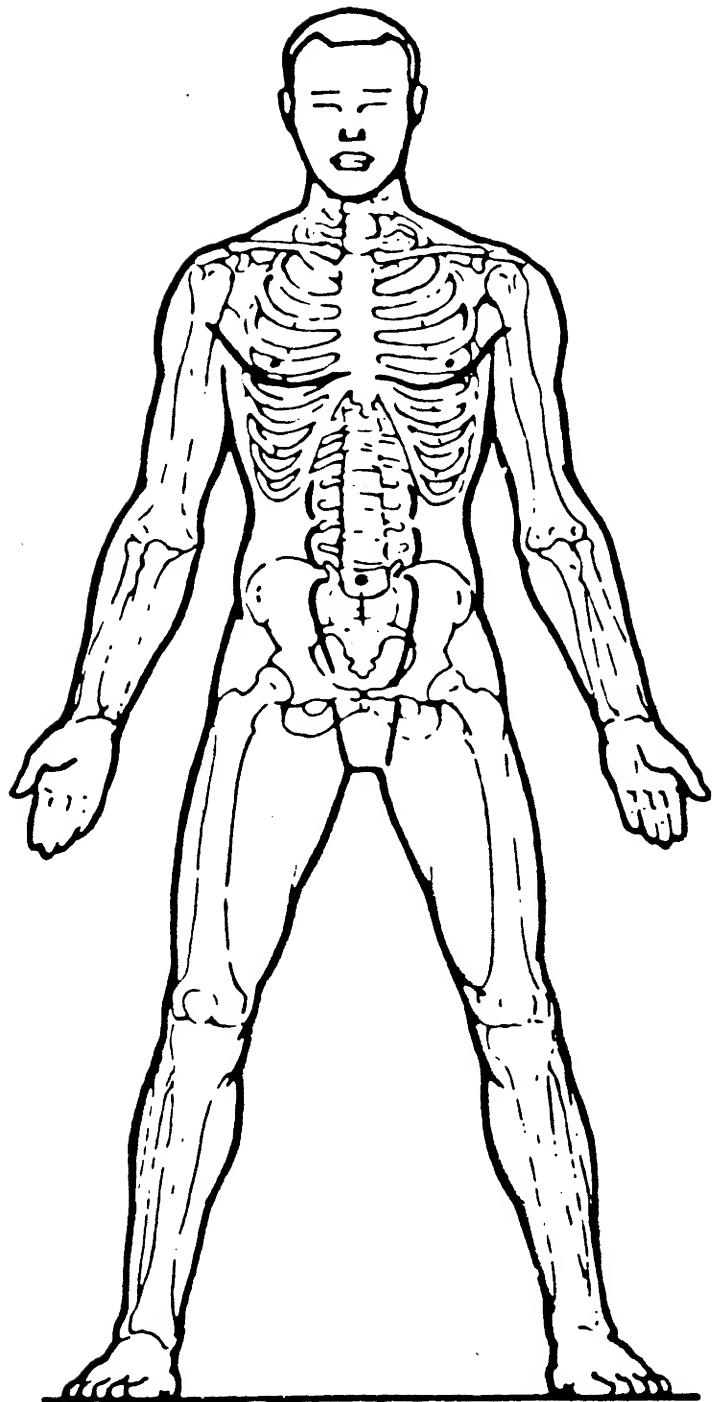
INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

Source of Injury Data	O.I.C.-A.I.S						Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury		Occupant Area Intrusion No.
	Body Region	Aspect	Lesion	System Organ	A.I.S. Severity						
1st	5. <u>0</u>	6. <u>0</u>	7. <u>0</u>	8. <u>0</u>	9. <u>0</u>	10. <u>0</u>	11. <u>00</u>	12. <u>0</u>	13. <u>0</u>	14. <u>00</u>	
2nd	15. <u> </u>	16. <u> </u>	17. <u> </u>	18. <u> </u>	19. <u> </u>	20. <u> </u>	21. <u> </u>	22. <u> </u>	23. <u> </u>	24. <u> </u>	
3rd	25. <u> </u>	26. <u> </u>	27. <u> </u>	28. <u> </u>	29. <u> </u>	30. <u> </u>	31. <u> </u>	32. <u> </u>	33. <u> </u>	34. <u> </u>	
4th	35. <u> </u>	36. <u> </u>	37. <u> </u>	38. <u> </u>	39. <u> </u>	40. <u> </u>	41. <u> </u>	42. <u> </u>	43. <u> </u>	44. <u> </u>	
5th	45. <u> </u>	46. <u> </u>	47. <u> </u>	48. <u> </u>	49. <u> </u>	50. <u> </u>	51. <u> </u>	52. <u> </u>	53. <u> </u>	54. <u> </u>	
6th	55. <u> </u>	56. <u> </u>	57. <u> </u>	58. <u> </u>	59. <u> </u>	60. <u> </u>	61. <u> </u>	62. <u> </u>	63. <u> </u>	64. <u> </u>	
7th	65. <u> </u>	66. <u> </u>	67. <u> </u>	68. <u> </u>	69. <u> </u>	70. <u> </u>	71. <u> </u>	72. <u> </u>	73. <u> </u>	74. <u> </u>	
8th	75. <u> </u>	76. <u> </u>	77. <u> </u>	78. <u> </u>	79. <u> </u>	80. <u> </u>	81. <u> </u>	82. <u> </u>	83. <u> </u>	84. <u> </u>	
9th	85. <u> </u>	86. <u> </u>	87. <u> </u>	88. <u> </u>	89. <u> </u>	90. <u> </u>	91. <u> </u>	92. <u> </u>	93. <u> </u>	94. <u> </u>	
10th	95. <u> </u>	96. <u> </u>	97. <u> </u>	98. <u> </u>	99. <u> </u>	100. <u> </u>	101. <u> </u>	102. <u> </u>	103. <u> </u>	104. <u> </u>	

OCCUPANT INJURY DATA

AGE .04
SEX Male
WT. 17.1kg (38lbs)
HT. 106.7cm (42")



NOT INJURED.

SOURCE OF INJURY DATA**OFFICIAL**

(1) Autopsy records with or without hospital medical records
 (2) Hospital medical records other than emergency room (e.g., discharge summary)
 (3) Emergency room records only (including associated X-rays or other lab reports)
 (4) Private physician, walk-in or emergency clinic

UNOFFICIAL

(5) Lay coroner report
 (6) E.M.S. personnel
 (7) Interviewee
 (8) Other source (specify):
 (9) Police

INJURY SOURCE**FRONT**

(01) Windshield
 (02) Mirror
 (03) Sunvisor
 (04) Steering wheel rim
 (05) Steering wheel hub/spoke
 (06) Steering wheel (combination of codes 04 and 05)
 (07) Steering column, transmission selector lever, other attachment
 (08) Add on equipment (e.g., CB, tape deck, air conditioner)
 (09) Left instrument panel and below
 (10) Center instrument panel and below
 (11) Right instrument panel and below
 (12) Glove compartment door
 (13) Knee bolster
 (14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror, or steering assembly (driver side only)
 (15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)
 (16) Other front object (specify):

LEFT SIDE

(20) Left side interior surface, excluding hardware or armrests
 (21) Left side hardware or armrest
 (22) Left A pillar
 (23) Left B pillar
 (24) Other left pillar (specify):
 (25) Left side window glass or frame

(26) Left side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail.
 (27) Other left side object (specify):

(28) Left side window sill

RIGHT SIDE

(30) Right side interior surface, excluding hardware or armrests
 (31) Right side hardware or armrest
 (32) Right A pillar
 (33) Right B pillar
 (34) Other right pillar (specify):
 (35) Right side window glass or frame
 (36) Right side window glass including one or more of the following: frame, window sill, A pillar, B pillar, or roof side rail.
 (37) Other right side object (specify):

(38) Right side window sill

INTERIOR

(40) Seat, back support
 (41) Belt restraint webbing/buckle
 (42) Belt restraint B-pillar attachment point
 (43) Other restraint system component (specify):
 (44) Head restraint system
 (45) Air bag
 (46) Other occupants (specify):
 (47) Interior loose objects
 (48) Child safety seat (specify):
 (49) Other interior object (specify):

ROOF

(50) Front header
 (51) Rear header
 (52) Roof left side rail
 (53) Roof right side rail
 (54) Roof or convertible top

FLOOR

(56) Floor (including toe pan)
 (57) Floor or console mounted transmission lever, including console
 (58) Parking brake handle
 (59) Foot controls including parking brake

REAR

(60) Backlight (rear window)

(61) Backlight storage rack, door, etc.
 (62) Other rear object (specify):

EXTERIOR OF OCCUPANT'S VEHICLE

(65) Hood
 (66) Outside hardware (e.g., outside mirror, antenna)
 (67) Other exterior surface or tires (specify):
 (68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

(70) Front bumper
 (71) Hood edge
 (72) Other front of vehicle (specify):

(73) Hood
 (74) Hood ornament
 (75) Windshield, roof rail, A-pillar
 (76) Side surface
 (77) Side mirrors
 (78) Other side protrusions (specify):

(79) Rear surface
 (80) Undercarriage
 (81) Tires and wheels
 (82) Other exterior of other motor vehicle (specify):

(83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

(84) Ground
 (85) Other vehicle or object (specify):

(86) Unknown vehicle or object

NONCONTACT INJURY

(90) Fire in vehicle
 (91) Flying glass
 (92) Other noncontact injury source (specify):
 (93) Air bag exhaust gases
 (97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

(1) Certain
 (2) Probable
 (3) Possible
 (9) Unknown

DIRECT/INDIRECT INJURY

(1) Direct contact injury
 (2) Indirect contact injury
 (3) Noncontact injury
 (7) Injured, unknown source

OCCUPANT INJURY CLASSIFICATION**O.I.C. Body Region**

(M) Abdomen
 (Q) Ankle-foot
 (A) Arm (upper)
 (B) Back-thoracolumbar spine
 (C) Chest
 (E) Elbow
 (F) Face
 (R) Forearm
 (H) Head-skull
 (U) Injured, unknown region
 (K) Knee
 (L) Leg (lower)
 (Y) Lower limb(s) (whole or unknown part)
 (N) Neck-cervical spine
 (P) Pelvic-hip
 (S) Shoulder
 (T) Thigh
 (X) Upper limb(s) (whole or unknown part)
 (O) Whole body
 (W) Wrist-hand

Aspect of Injury

(A) Anterior-front
 (B) Bilateral (rib fracture only)
 (C) Central
 (I) Inferior-lower
 (U) Injured, unknown aspect
 (L) Left
 (P) Posterior-back
 (R) Right
 (S) Superior-upper
 (W) Whole region

Lesion

(A) Abrasion
 (M) Amputation
 (V) Avulsion
 (B) Burn
 (K) Concussion
 (C) Contusion
 (N) Crush
 (G) Detachment, separation
 (D) Dislocation

Fracture

(Z) Fracture and dislocation
 (U) Injured, unknown lesion
 (L) Laceration
 (O) Other
 (P) Perforation, puncture
 (R) Rupture
 (S) Sprain
 (T) Strain
 (E) Total severance, transection

System/Organ

(W) All systems in region
 (A) Arteries-veins
 (B) Brain
 (D) Digestive
 (E) Ears
 (O) Eye
 (H) Heart
 (U) Injured, unknown system
 (I) Integumentary
 (J) Joints
 (K) Kidneys

Liver

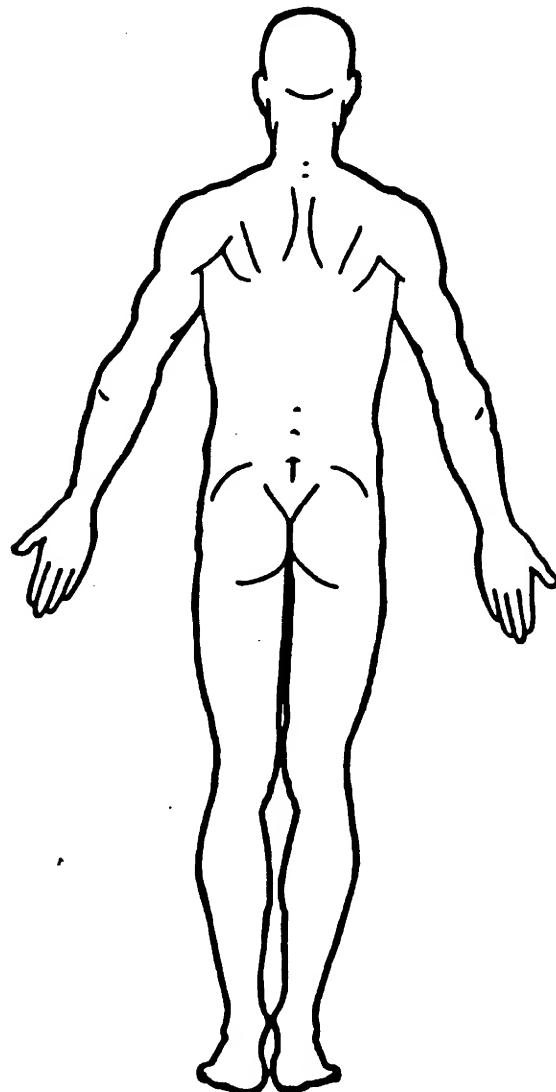
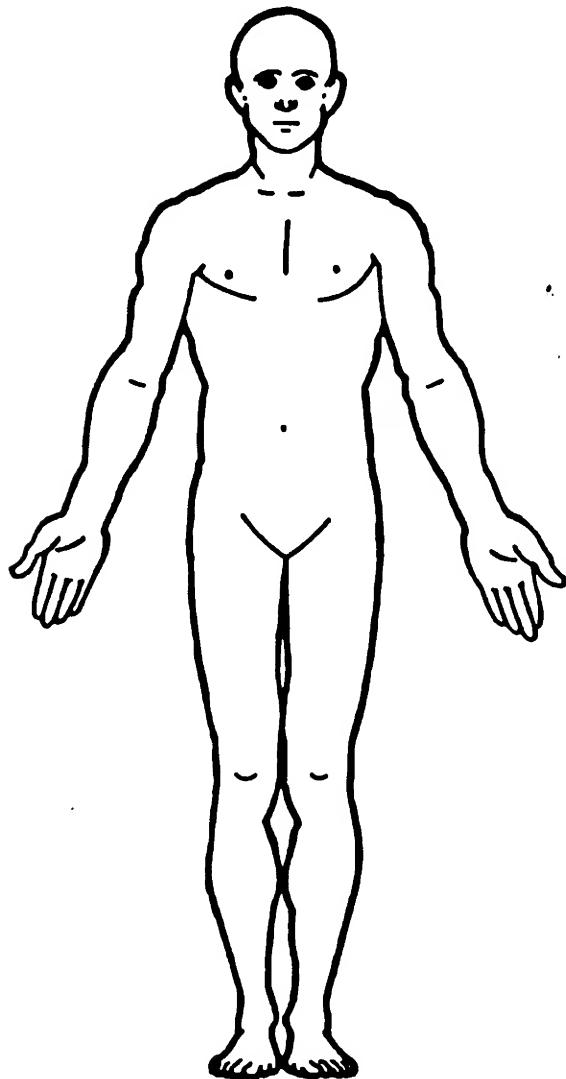
(M) Muscles
 (N) Nervous system
 (P) Pulmonary-lungs
 (R) Respiratory
 (S) Skeletal
 (C) Spinal cord
 (Q) Spleen
 (T) Thyroid, other endocrine gland
 (V) Vertebrae

Abbreviated Injury Scale

(1) Minor injury
 (2) Moderate injury
 (3) Serious injury
 (4) Severe injury
 (5) Critical injury
 (6) Maximum (untreatable)
 (7) Injured, unknown severity

OFFICIAL INJURY DATA – SOFT TISSUE INJURIES

Indicate the Location, Lesion, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number _____
2. Case Number - Stratum: 9 2 - 2 2
3. Vehicle Number 0 1
4. Occupant Number 0 3

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 0 6
Code actual age at time of accident.
(00) Less than one year old (specify by month):
(97) 97 years and older
(99) Unknown
6. Occupant's Sex 2
(1) Male
(2) Female
(9) Unknown
7. Occupant's Height 4 4
Code actual height to the nearest inch.
(99) Unknown
8. Occupant's Weight 0 5 0
Code actual weight to the nearest pounds.
(999) Unknown
9. Occupant's Role 2
(1) Driver
(2) Passenger
(9) Unknown
10. Occupant's Seat Position 1 3
Front Seat
(11) Left side
(12) Middle
(13) Right side
(14) Other (specify):
(15) On or in the lap of another occupant

Second Seat
(21) Left side
(22) Middle
(23) Right side
(24) Other (specify):
(25) On or in the lap of another occupant

Third Seat
(31) Left side
(32) Middle
(33) Right side
(34) Other (specify):
(35) On or in the lap of another occupant

Fourth Seat
(41) Left side
(42) Middle
(43) Right side
(44) Other (specify):
(45) On or in the lap of another occupant

(97) In or on unenclosed area
(98) Other seat (specify):
(99) Unknown

11. Occupant Posture
(0) Normal posture
(1) Abnormal posture (specify):
(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection 0
(0) No ejection
(1) Complete ejection
(2) Partial ejection
(3) Ejection, unknown degree
(9) Unknown
13. Ejection Area 0
(0) No ejection
(1) Windshield
(2) Left front
(3) Right front
(4) Left rear
(5) Right rear
(6) Rear
(7) Roof
(8) Other area (e.g., back of pickup, etc.)
(specify):
(9) Unknown
14. Ejection Medium 0
(0) No ejection
(1) Door/hatch/tailgate
(2) Nonfixed roof structure
(3) Fixed glazing
(4) Nonfixed glazing (specify):
(5) Integral structure
(8) Other medium (specify):
(9) Unknown
15. Medium Status (Immediately Prior To Impact) 0
(0) No ejection
(1) Open
(2) Closed
(3) Integral structure
(9) Unknown
16. Entrapment 0
(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)
(0) Not entrapped
(1) Entrapped
(9) Unknown

RESTRAINT SYSTEM AND SEAT EVALUATION	
17. Manual (Active) Belt System Availability	4
(0) None available (1) Belt removed/destroyed (2) Shoulder belt (3) Lap belt (4) Lap and shoulder belt (5) Belt available—type unknown	
<i>Integral Belt Partially Destroyed</i>	
(6) Shoulder belt (lap belt destroyed/removed) (7) Lap belt (shoulder belt destroyed/removed)	
(8) Other belt (specify):	
(9) Unknown	
18. Manual (Active) Belt System Use	04
(00) None used, not available, or belt removed/destroyed (01) Inoperative (specify):	
(02) Shoulder belt (03) Lap belt (04) Lap and shoulder belt (05) Belt used—type unknown (08) Other belt used (specify):	
(12) Shoulder belt used with child safety seat (13) Lap belt used with child safety seat (14) Lap and shoulder belt used with child safety seat (15) Belt used with child safety seat—type unknown (18) Other belt used with child safety seat (specify): (99) Unknown if belt used	
19. Proper Use of Manual (Active) Belts	1
(0) None used or not available (1) Belt used properly (2) Belt used properly with child safety seat	
<i>Belt Used Improperly</i>	
(3) Shoulder belt worn under arm (4) Shoulder belt worn behind back or seat (5) Belt worn around more than one person (6) Lap belt worn on abdomen (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): (8) Other improper use of manual belt system (specify): (9) Unknown	
20. Manual (Active) Belt Failure Modes	1
<i>During Accident</i>	
(0) No manual belt used (1) No manual belt failure(s) (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify): (6) Broken retractor (7) Combination of above (specify): (8) Other manual belt failure (specify): (9) Unknown	
21. Air Bag System Availability/Function	0
(0) Not equipped/not available (1) Air bag	
<i>Non-functional</i>	
(2) Air bag disconnected (specify):	
(3) Air bag not reinstalled (9) Unknown	
22. Air Bag System Deployment	0
(0) Not equipped/not available (1) Air bag deployed during accident (as a result of impact) (2) Air bag deployed inadvertently just prior to accident (3) Air bag deployed, accident sequence undetermined (4) Nondeployed (5) Unknown if deployed (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical) (9) Unknown	
23. Did Air Bag System Fail?	0
(0) Not equipped/not available (1) No (2) Yes (specify):	
(9) Unknown	
Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts	
24. Police Reported Restraint Use	4
(0) None used (1) Police did not indicate restraint use (2) Shoulder belt (3) Lap belt (4) Lap and shoulder belt (5) Belt used, type not specified (6) Child safety seat (7) Other or automatic restraint (specify): (8) Restrained, type unknown (9) Police indicated "unknown"	
25. Head Restraint Type/Damage by Occupant at This Occupant Position	3
(0) No head restraints (1) Integral—no damage (2) Integral—damaged during accident (3) Adjustable—no damage (4) Adjustable—damaged during accident (5) Add-on—no damage (6) Add-on—damaged during accident (8) Other (specify): (9) Unknown	

<p>26. Seat Type (this Occupant Position) <u>06</u></p> <p>(00) Occupant not seated or no seat (01) Bucket (02) Bucket with folding back (03) Bench (04) Bench with separate back cushions (05) Bench with folding back(s) (06) Split bench with separate back cushions (07) Split bench with folding back(s) (08) Pedestal (i.e., column supported) (09) Other seat type (specify): _____ (10) Box mounted seat (i.e., van type) (99) Unknown</p> <p>27. Seat Performance (this Occupant Position) <u>1</u></p> <p>(0) Occupant not seated or no seat (1) No seat performance failure(s) (2) Seat adjusters failed (3) Seat back folding locks or "seat back" failed (4) Seat track/anchors failed (5) Deformed by impact of occupant (6) Deformed by passenger compartment intrusion (specify): _____ _____ (7) Combination of above (specify): _____ (8) Other (specify): _____ (9) Unknown</p>	<p>30. Child Safety Seat Orientation <u>00</u></p> <p>(00) No child safety seat</p> <p><i>Designed for Rear Facing for This Age/Weight</i> (01) Rear facing (02) Forward facing (08) Other orientation (specify): _____ (09) Unknown orientation</p> <p><i>Designed For Forward Facing for This Age/Weight</i> (11) Rear facing (12) Forward facing (18) Other orientation (specify): _____ (19) Unknown orientation</p> <p><i>Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight</i> (21) Rear facing (22) Forward facing (28) Other orientation (specify): _____ (29) Unknown orientation</p> <p>(99) Unknown if child safety seat used</p> <p>31. Child Safety Seat Harness Usage <u>00</u></p> <p>32. Child Safety Seat Shield Usage <u>00</u></p> <p>33. Child Safety Seat Tether Usage <u>00</u></p> <p>Note: Options below applicable to Variables OA31-OA33.</p> <p>(00) No child safety seat</p> <p><i>Not Designed With Harness/Shield/Tether</i> (01) After market harness/shield/tether added, not used (02) After market harness/shield/tether used (03) Child safety seat used, but no after market harness/shield/tether added (09) Unknown if harness/shield/tether added or used</p> <p><i>Designed With Harness/Shield/Tether</i> (11) Harness/shield/tether not used (12) Harness/shield/tether used (19) Unknown if harness/shield/tether used</p> <p><i>Unknown If Designed With Harness/Shield/Tether</i> (21) Harness/shield/tether not used (22) Harness/shield/tether used (29) Unknown if harness/shield/tether used</p> <p>(99) Unknown if child safety seat used</p>
<p>CHILD SAFETY SEAT</p> <p>28. Child Safety Seat Make/Model <u>000</u></p> <p>(000) No child safety seat Applicable codes are found in your NASS CDS Data Collection, Coding and Editing (950) Built-in child safety seat (997) Other make/model (specify): _____ (998) Unknown make/model (999) Unknown if child safety seat used</p> <p>29. Type of Child Safety Seat <u>0</u></p> <p>(0) No child safety seat (1) Infant seat (2) Toddler seat (3) Convertible seat (4) Booster seat (7) Other type child safety seat (specify): _____ (8) Unknown child safety seat type (9) Unknown if child safety seat used</p>	

INJURY CONSEQUENCES	
34. Injury Severity (Police Rating)	3
(0) O - No injury (1) C - Possible injury (2) B - Nonincapacitating injury (3) A - Incapacitating injury (4) K - Killed (5) U - Injury, severity unknown (6) Died prior to accident (9) Unknown	
35. Treatment - Mortality	0
(0) No treatment (1) Fatal (2) Fatal - ruled disease	
<i>Nonfatal</i>	
(3) Hospitalization (4) Transported and released (5) Treatment at scene - nontransported (6) Treatment later (8) Treatment - other (specify): (9) Unknown	
36. Type Of Medical Facility (for Initial Treatment)	0
(0) Not treated at a medical facility (1) Trauma center (2) Hospital (3) Medical clinic (4) Physician's office (5) Treatment later at medical facility (8) Other (specify): (9) Unknown	
37. Hospital Stay	0 0
(00) Not Hospitalized Code the number of days (up through 60) that the occupant stayed in hospital. (61) 61 days or more (99) Unknown	
38. Working Days Lost	0 0
Code the number of days (up through 60) that the occupant lost from work due to the accident	
(00) No working days lost (61) 61 days or more (62) Fatally injured (97) Not working prior to accident (99) Unknown	
39. Time to Death	0 0
Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)	
(00) Not fatal (96) Fatal - ruled disease (99) Unknown	
40. 1st Medically Reported Cause of Death	0 0
41. 2nd Medically Reported Cause of Death	0 0
42. 3rd Medically Reported Cause of Death	0 0
Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death	
(00) Not fatal or no additional causes (97) Other result (specify): (99) Unknown	
43. Number of Recorded Injuries for This Occupant	0 0
Code the actual number of injuries recorded for this occupant.	
(00) No recorded injuries (97) Injured, details unknown (99) Unknown if injured	

AUTOMATIC BELT SYSTEM**44. Automatic (Passive) Belt System Availability/****Function**

(0) Not equipped/not available
 (1) 2 point automatic belts
 (2) 3 point automatic belts
 (3) Automatic belts - type unknown

Non-functional

(4) Automatic belts destroyed or rendered inoperative
 (9) Unknown

45. Automatic (Passive) Belt System Use

(0) Not equipped/not available/destroyed or rendered inoperative
 (1) Automatic belt in use
 (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
 (3) Automatic belt use unknown
 (9) Unknown

46. Automatic (Passive) Belt System Type

(0) Not equipped/not available
 (1) Non-motorized system
 (2) Motorized system
 (9) Unknown

47. Proper Use of Automatic (Passive Belt System)

(0) Not equipped/not available/not used
 (1) Automatic belt used properly
 (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

(3) Automatic shoulder belt worn under arm
 (4) Automatic shoulder belt worn behind back
 (5) Automatic belt worn around more than one person
 (6) Lap portion of automatic belt worn on abdomen
 (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):
 (8) Other improper use of automatic belt system (specify):
 (9) Unknown

48. Automatic (Passive) Belt Failure Modes**During Accident**

(0) Not equipped/not available/not in use
 (1) No automatic belt failure(s)
 (2) Torn webbing (stretched webbing not included)
 (3) Broken buckle or latchplate
 (4) Upper anchorage separated
 (5) Other anchorage separated (specify):

(6) Broken retractor

(7) Combination of above (specify):

(8) Other automatic belt failure (specify):

(9) Unknown

49. Seat Orientation (this Occupant Position)

(0) Occupant not seated or no seat
 (1) Forward facing seat
 (2) Rear facing seat
 (3) Side facing seat (inward)
 (4) Side facing seat (outward)
 (8) Other (specify):

(9) Unknown

TRAUMA DATA**50. Glasgow Coma Scale (GCS) Score**

(at Medical Facility)
 (00) Not injured
 (01) Injured - not treated at medical facility
 (02) No GCS Score at medical facility
 (03-15) Code the actual value of the initial GCS Score recorded at medical facility.
 (97) Injured, details unknown
 (99) Unknown if injured

51. Was the Occupant Given Blood?

(1) No - blood not given
 (2) Yes - blood given
 (specify units):
 (9) Unknown if blood given

52. Arterial Blood Gases (ABG) - HCO₃

(00) Not injured
 (01) Injured, ABGs not measured or reported
 (02-50) Code the actual value of the HCO₃
 (96) ABGs reported, HCO₃ unknown
 (97) Injured, details unknown
 (99) Unknown if injured

UPDATE CANDIDATE?NO [] YES []**OCCUPANT INJURY FORM INCLUDED WITH INITIAL SUBMISSION? NO [] YES []******* STOP HERE *******IF THERE ARE NO RECORDED INJURIES
(I.E., OA43=00,97,99)**



OCCUPANT INJURY FORM

1. Primary Sampling Unit Number _____

3. Vehicle Number 01

2. Case Number -Stratum 9 2 - 2 2

4. Occupant Number 03

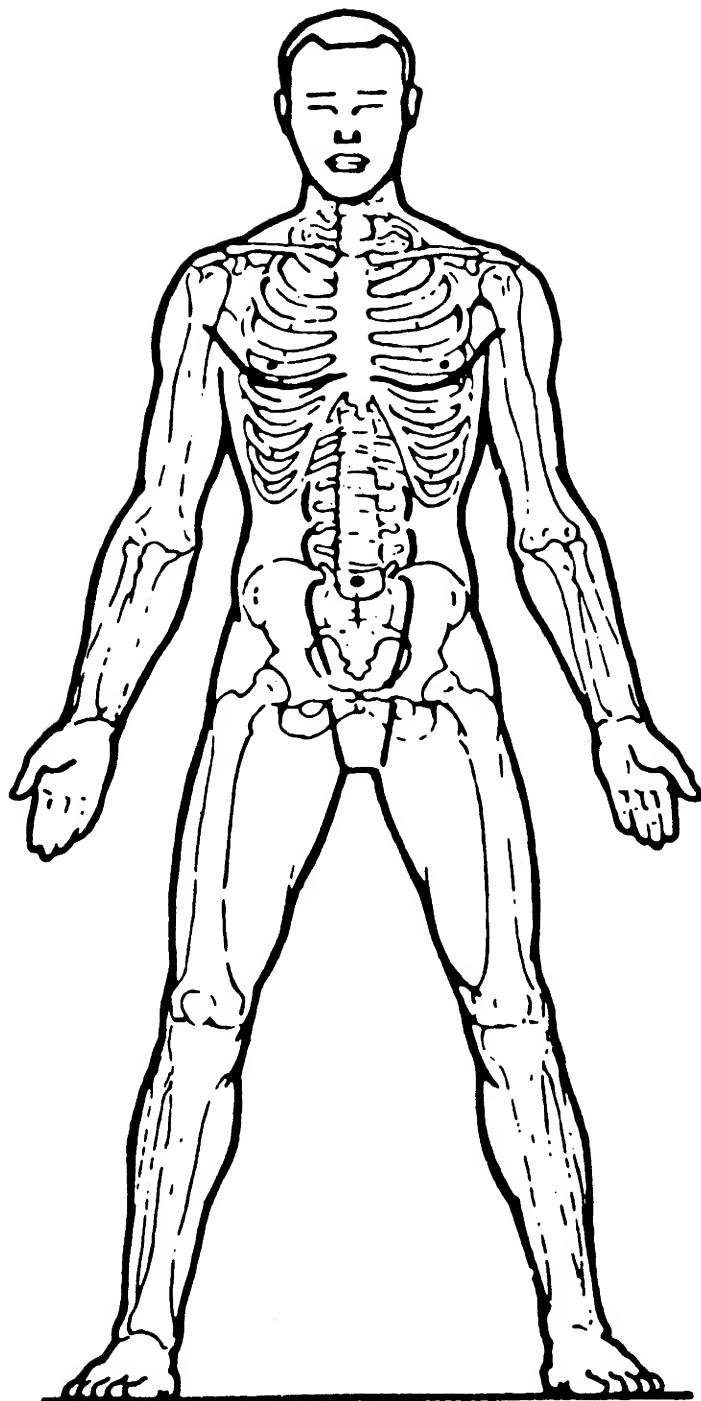
INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

Source of Injury Data	O.I.C.-A.I.S						Injury Source	Injury Source Confidence Level	Direct/Indirect Injury	Occupant Area Intrusion No.
	Body Region	Aspect	Lesion	System Organ	A.I.S. Severity					
1st	5. <u>0</u>	6. <u>0</u>	7. <u>0</u>	8. <u>0</u>	9. <u>0</u>	10. <u>0</u>	11. <u>00</u>	12. <u>0</u>	13. <u>0</u>	14. <u>00</u>
2nd	15. _____	16. _____	17. _____	18. _____	19. _____	20. _____	21. _____	22. _____	23. _____	24. _____
3rd	25. _____	26. _____	27. _____	28. _____	29. _____	30. _____	31. _____	32. _____	33. _____	34. _____
4th	35. _____	36. _____	37. _____	38. _____	39. _____	40. _____	41. _____	42. _____	43. _____	44. _____
5th	45. _____	46. _____	47. _____	48. _____	49. _____	50. _____	51. _____	52. _____	53. _____	54. _____
6th	55. _____	56. _____	57. _____	58. _____	59. _____	60. _____	61. _____	62. _____	63. _____	64. _____
7th	65. _____	66. _____	67. _____	68. _____	69. _____	70. _____	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____	79. _____	80. _____	81. _____	82. _____	83. _____	84. _____
9th	85. _____	86. _____	87. _____	88. _____	89. _____	90. _____	91. _____	92. _____	93. _____	94. _____
10th	95. _____	96. _____	97. _____	98. _____	99. _____	100. _____	101. _____	102. _____	103. _____	104. _____

OCCUPANT INJURY DATA

AGE 06
SEX Female
WT. 22.5kg (501bs)
HT. 111.8cm (44")



NOT INJURED.

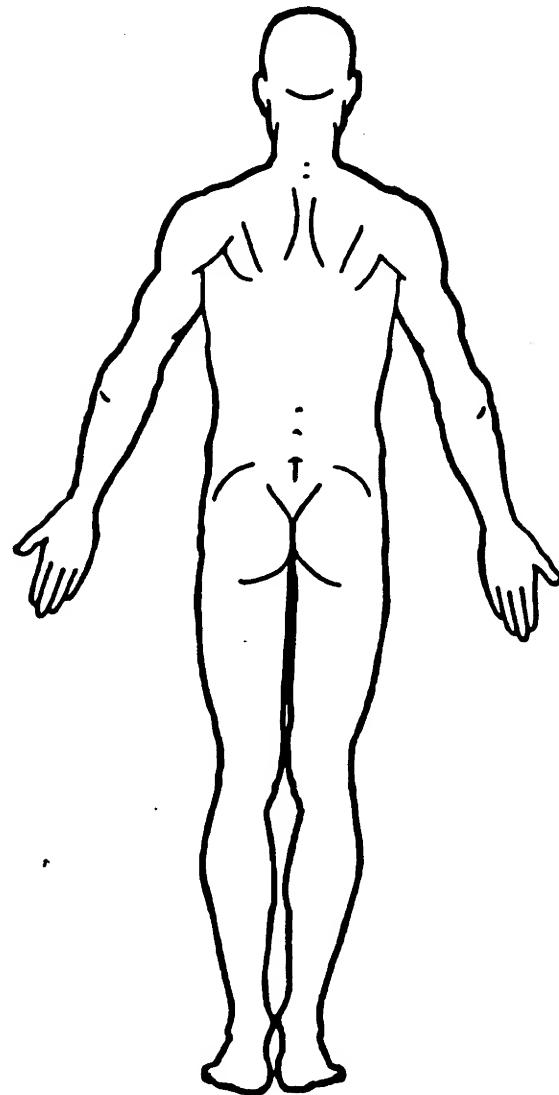
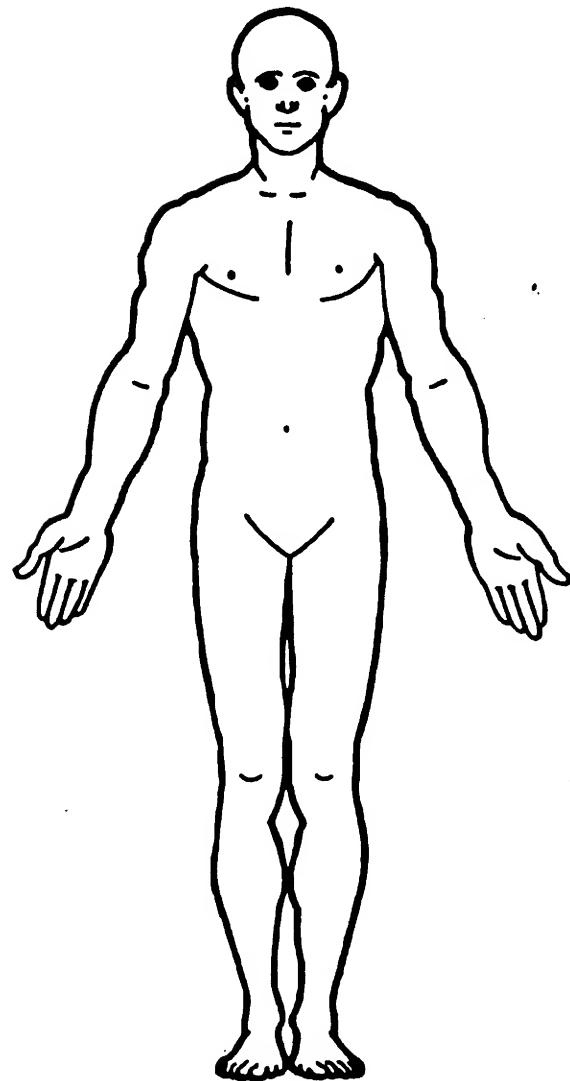
SOURCE OF INJURY DATA	
OFFICIAL	
(1) Autopsy records with or without hospital medical records	
(2) Hospital medical records other than emergency room (e.g., discharge summary)	
(3) Emergency room records only (including associated X-rays or other lab reports)	
(4) Private physician, walk-in or emergency clinic	
UNOFFICIAL	
(5) Lay coroner report	
(6) E.M.S. personnel	
(7) Interviewee	
(8) Other source (specify):	
(9) Police	
INJURY SOURCE	
FRONT	
(01) Windshield	
(02) Mirror	
(03) Sunvisor	
(04) Steering wheel rim	
(05) Steering wheel hub/spoke	
(06) Steering wheel (combination of codes 04 and 05)	
(07) Steering column, transmission selector lever, other attachment	
(08) Add on equipment (e.g., CB, tape deck, air conditioner)	
(09) Left instrument panel and below	
(10) Center instrument panel and below	
(11) Right instrument panel and below	
(12) Glove compartment door	
(13) Knee bolster	
(14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror, or steering assembly (driver side only)	
(15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)	
(16) Other front object (specify):	
LEFT SIDE	
(20) Left side interior surface, excluding hardware or armrests	
(21) Left side hardware or armrest	
(22) Left A pillar	
(23) Left B pillar	
(24) Other left pillar (specify):	
(25) Left side window glass or frame	
RIGHT SIDE	
(30) Right side interior surface, excluding hardware or armrests	
(31) Right side hardware or armrest	
(32) Right A pillar	
(33) Right B pillar	
(34) Other right pillar (specify):	
(35) Right side window glass or frame	
(36) Right side window glass including one or more of the following: frame, window sill, A pillar, B pillar, or roof side rail	
(37) Other right side object (specify):	
(38) Right side window sill	
INTERIOR	
(40) Seat, back support	
(41) Belt restraint webbing/buckle	
(42) Belt restraint B-pillar attachment point	
(43) Other restraint system component (specify):	
(44) Head restraint system	
(45) Air bag	
(46) Other occupants (specify):	
(47) Interior loose objects	
(48) Child safety seat (specify):	
(49) Other interior object (specify):	
ROOF	
(50) Front header	
(51) Rear header	
(52) Roof left side rail	
(53) Roof right side rail	
(54) Roof or convertible top	
FLOOR	
(56) Floor (including toe pan)	
(57) Floor or console mounted transmission lever, including console	
(58) Parking brake handle	
(59) Foot controls including parking brake	
REAR	
(60) Backlight (rear window)	
EXTERIOR OF OCCUPANT'S VEHICLE	
(65) Hood	
(66) Outside hardware (e.g., outside mirror, antenna)	
(67) Other exterior surface or tires (specify):	
(68) Unknown exterior objects	
EXTERIOR OF OTHER MOTOR VEHICLE	
(70) Front bumper	
(71) Hood edge	
(72) Other front of vehicle (specify):	
(73) Hood	
(74) Hood ornament	
(75) Windshield, roof rail, A-pillar	
(76) Side surface	
(77) Side mirrors	
(78) Other side protrusions (specify)	
(79) Rear surface	
(80) Undercarriage	
(81) Tires and wheels	
(82) Other exterior of other motor vehicle (specify):	
(83) Unknown exterior of other motor vehicle	
OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT	
(84) Ground	
(85) Other vehicle or object (specify):	
(86) Unknown vehicle or object	
NONCONTACT INJURY	
(90) Fire in vehicle	
(91) Flying glass	
(92) Other noncontact injury source (specify):	
(93) Air bag exhaust gases	
(97) Injured, unknown source	
INJURY SOURCE CONFIDENCE LEVEL	
(1) Certain	
(2) Probable	
(3) Possible	
(9) Unknown	
DIRECT/INDIRECT INJURY	
(1) Direct contact injury	
(2) Indirect contact injury	
(3) Noncontact injury	
(7) Injured, unknown source	

OCCUPANT INJURY CLASSIFICATION

O.I.C. Body Region		Aspect of Injury		System/Organ		Abbreviated Injury Scale	
(M) Abdomen	(A) Anterior—front	(F) Fracture	(L) Liver	(M) Abdomen	(N) Nervous system	(1) Minor injury	
(Q) Ankle—foot	(B) Bilateral (rib fracture only)	(Z) Fracture and dislocation	(M) Muscles	(N) Neck—cervical spine	(P) Pulmonary—lungs	(2) Moderate injury	
(A) Arm (upper)	(C) Central	(U) Injured, unknown lesion	(R) Respiratory	(P) Pelvic—hip	(S) Skeletal	(3) Serious injury	
(B) Back-thoracolumbar spine	(I) Inferior—lower	(L) Laceration	(C) Spinal cord	(S) Shoulder	(Q) Spleen	(4) Severe injury	
(C) Chest	(U) Injured, unknown aspect	(O) Other	(T) Thyroid, other endocrine gland	(T) Head—skull	(I) Eye	(5) Critical injury	
(E) Elbow	(L) Left	(P) Perforation, puncture	(V) Vertebrae	(R) Injured, unknown region	(H) Heart	(6) Maximum (untreatable)	
(F) Face	(P) Posterior—back	(R) Rupture	(E) Liver	(K) Knee	(U) Injured, unknown system	(7) Injured, unknown severity	
(R) Forearm	(R) Right	(S) Sprain	(M) Muscles	(B) Leg (lower)	(I) Integumentary		
(H) Head—skull	(S) Superior—upper	(T) Strain	(N) Nervous system	(Y) Lower limb(s) (whole or unknown part)	(J) Joints		
(U) Injured, unknown region	(W) Whole region	(E) Total severance, transection	(P) Pulmonary—lungs	(N) Neck—cervical spine	(K) Kidneys		
(K) Knee			(S) Skeletal	(P) Pelvic—hip			
(L) Leg (lower)			(C) Spinal cord	(S) Shoulder			
(Y) Lower limb(s) (whole or unknown part)			(Q) Spleen	(T) Thigh			
(N) Neck—cervical spine			(T) Thyroid, other endocrine gland	(X) Upper limb(s) (whole or unknown part)			
(P) Pelvic—hip			(V) Vertebrae	(O) Whole body			
(S) Shoulder				(W) Wrist—hand			
(T) Thigh							
(X) Upper limb(s) (whole or unknown part)							
(O) Whole body							
(W) Wrist—hand							

OFFICIAL INJURY DATA – SOFT TISSUE INJURIES

Indicate the Location, Lesion, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



APPENDIX F

NASS Vehicle Forms

(Vehicle #2)



GENERAL VEHICLE FORM

1. Primary Sampling Unit Number	1	11. Police Reported Alcohol Presence (0) No alcohol present (1) Yes (alcohol present) (7) Not reported (8) No driver present (9) Unknown			
2. Case Number - Stratum	92-22	2. Case Number - Stratum	92-22	12. Alcohol Test Result For Driver Code actual value (decimal implied before first digit—0.xx) (95) Test refused (96) None given (97) AC test performed, results unknown (98) No driver present (99) Unknown	
3. Vehicle Number	02	3. Vehicle Number	02	Source: _____	
VEHICLE IDENTIFICATION					
4. Vehicle Model Year Code the last two digits of the model year (99) Unknown	77	4. Vehicle Model Year Code the last two digits of the model year (99) Unknown	77	13. Speed Limit (00) No statutory limit Code posted or statutory speed limit (99) Unknown	
5. Vehicle Make (specify): <u>CHEVROLET</u> Applicable codes are found in your NASS Data Collection, Coding and Editing Manual. (99) Unknown	20	5. Vehicle Make (specify): <u>CHEVROLET</u> Applicable codes are found in your NASS Data Collection, Coding and Editing Manual. (99) Unknown	20	14. Attempted Avoidance Maneuver (00) No impact (01) No avoidance actions (02) Braking (no lockup) (03) Braking (lockup) (04) Braking (lockup unknown) (05) Releasing brakes (06) Steering left (07) Steering right (08) Braking and steering left (09) Braking and steering right (10) Accelerating (11) Accelerating and steering left (12) Accelerating and steering right (97) No driver present (98) Other action (specify): (99) Unknown	
6. Vehicle Model (specify): <u>NOVA</u> Applicable codes are found in your NASS Data Collection, Coding and Editing Manual. (999) Unknown	008	6. Vehicle Model (specify): <u>NOVA</u> Applicable codes are found in your NASS Data Collection, Coding and Editing Manual. (999) Unknown	008	15. Accident Type Applicable codes may be found on the back of page two of this field form (00) No impact Code the number of the diagram that best describes the accident circumstance (98) Other accident type (specify): (99) Unknown	
7. Body Type Note: Applicable codes may be found on the back of this page.	02	7. Body Type Note: Applicable codes may be found on the back of this page.	02	8. Vehicle Identification Number <u>1X27D7W</u> Left justify; Slash zeros and letter Z (0 and Z) No VIN—Code all zeros Unknown—Code all nine's	8. Vehicle Identification Number <u>1X27D7W</u> Left justify; Slash zeros and letter Z (0 and Z) No VIN—Code all zeros Unknown—Code all nine's
OFFICIAL RECORDS					
9. Police Reported Vehicle Disposition (0) Not towed due to vehicle damage (1) Towed due to vehicle damage (9) Unknown	1	9. Police Reported Vehicle Disposition (0) Not towed due to vehicle damage (1) Towed due to vehicle damage (9) Unknown	1	10. Police Reported Travel Speed Code to the nearest mph (NOTE: 00 means less than 0.5 mph) (97) 96.5 mph and above (99) Unknown	10. Police Reported Travel Speed Code to the nearest mph (NOTE: 00 means less than 0.5 mph) (97) 96.5 mph and above (99) Unknown
11. Police Reported Alcohol Presence (0) No alcohol present (1) Yes (alcohol present) (7) Not reported (8) No driver present (9) Unknown	0	11. Police Reported Alcohol Presence (0) No alcohol present (1) Yes (alcohol present) (7) Not reported (8) No driver present (9) Unknown	0	12. Alcohol Test Result For Driver Code actual value (decimal implied before first digit—0.xx) (95) Test refused (96) None given (97) AC test performed, results unknown (98) No driver present (99) Unknown	12. Alcohol Test Result For Driver Code actual value (decimal implied before first digit—0.xx) (95) Test refused (96) None given (97) AC test performed, results unknown (98) No driver present (99) Unknown
13. Speed Limit (00) No statutory limit Code posted or statutory speed limit (99) Unknown	30	13. Speed Limit (00) No statutory limit Code posted or statutory speed limit (99) Unknown	30	14. Attempted Avoidance Maneuver (00) No impact (01) No avoidance actions (02) Braking (no lockup) (03) Braking (lockup) (04) Braking (lockup unknown) (05) Releasing brakes (06) Steering left (07) Steering right (08) Braking and steering left (09) Braking and steering right (10) Accelerating (11) Accelerating and steering left (12) Accelerating and steering right (97) No driver present (98) Other action (specify): (99) Unknown	14. Attempted Avoidance Maneuver (00) No impact (01) No avoidance actions (02) Braking (no lockup) (03) Braking (lockup) (04) Braking (lockup unknown) (05) Releasing brakes (06) Steering left (07) Steering right (08) Braking and steering left (09) Braking and steering right (10) Accelerating (11) Accelerating and steering left (12) Accelerating and steering right (97) No driver present (98) Other action (specify): (99) Unknown
15. Accident Type Applicable codes may be found on the back of page two of this field form (00) No impact Code the number of the diagram that best describes the accident circumstance (98) Other accident type (specify): (99) Unknown	83	15. Accident Type Applicable codes may be found on the back of page two of this field form (00) No impact Code the number of the diagram that best describes the accident circumstance (98) Other accident type (specify): (99) Unknown	83		

***** SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 *****

CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): _____
- (09) Unknown automobile type

Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

Utility Vehicles ($\leq 10,000$ lbs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravado, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Landcruiser, Rover, Scout)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

Van Based Light Trucks ($\leq 10,000$ lbs GVWR)

- (20) Minivan (Chrysler Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Dodge/Plymouth Vista, Aerostar, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Mitsubishi Minivan, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ($\leq 10,000$ lbs GVWR)
- (23) Van based motorhome ($\leq 10,000$ lbs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): _____
- (29) Unknown van type

Light Conventional Trucks (Pickup style cab, $\leq 10,000$ lbs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500,)
- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

Other Light Trucks ($\leq 10,000$ lbs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): _____
- (59) Unknown bus type

Medium/Heavy Trucks ($> 10,000$ lbs GVWR)

- (60) Step van ($> 10,000$ lbs GVWR)
- (61) Single unit straight truck ($10,000$ lbs $<$ GVWR \leq 19,500 lbs)
- (62) Single unit straight truck (19,500 lbs $<$ GVWR \leq 26,000 lbs)
- (63) Single unit straight truck ($> 26,000$ lbs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

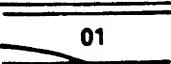
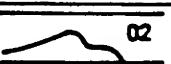
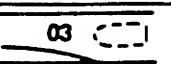
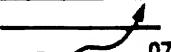
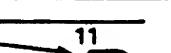
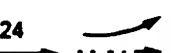
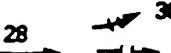
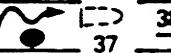
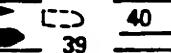
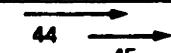
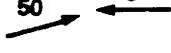
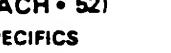
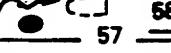
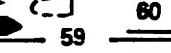
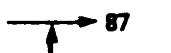
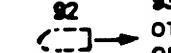
Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): _____
- (89) Unknown motored cycle type

Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type

OCCUPANT RELATED	
16. Driver Presence in Vehicle (0) Driver not present (1) Driver present (9) Unknown	1
17. Number of Occupants This Vehicle (00-96) Code actual number of occupants for this vehicle (97) 97 or more (99) Unknown	0 1
18. Number of Occupant Forms Submitted	0 1
VEHICLE WEIGHT ITEMS	
19. Vehicle Curb Weight 3284 Code weight to nearest 100 pounds. (010) Less than 1050 pounds (135) 13,500 pounds or more (999) Unknown	0 3 . 3 0 0
Source: _____	
20. Vehicle Cargo Weight Code weight to nearest 100 pounds. (00) Less than 50 pounds (97) 9,650 pounds or more (99) Unknown	0, 0 0 0
RECONSTRUCTION DATA	
21. Towed Trailing Unit (0) No towed unit (1) Yes—towed trailing unit (9) Unknown	0
22. Documentation of Trajectory Data for This Vehicle (0) No (1) Yes	0
23. Post Collision Condition of Tree or Pole (For Highest Delta V) (0) Not collision (for highest delta V) with tree or pole (1) Not damaged (2) Cracked/sheared (3) Tilted <45 degrees (4) Tilted ≥45 degrees (5) Uprooted tree (6) Separated pole from base (7) Pole replaced (8) Other (specify): (9) Unknown	0
24. Rollover (0) No rollover (no overturning) <i>Rollover (primarily about the longitudinal axis)</i> (1) Rollover, 1 quarter turn only (2) Rollover, 2 quarter turns (3) Rollover, 3 quarter turns (4) Rollover, 4 or more quarter turns (specify): (5) Rollover--end-over-end (i.e., primarily about the lateral axis) (9) Rollover (overturn), details unknown	0
OVERRIDE/UNDERRIDE (THIS VEHICLE)	
25. Front Override/Underride (this Vehicle)	0
26. Rear Override/Underride (this Vehicle) (0) No override/underride, or not an end-to-end impact <i>Override (see specific CDC)</i> (1) 1st CDC (2) 2nd CDC (3) Other not automated CDC (specify): <i>Underride (see specific CDC)</i> (4) 1st CDC (5) 2nd CDC (6) Other not automated CDC (specify): (7) Medium/heavy truck or bus override (9) Unknown	0
HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V	
Values: (000)-(359) Code actual value (997) Noncollision (998) Impact with object (999) Unknown	
27. Heading Angle For This Vehicle	0 3 2
28. Heading Angle For Other Vehicle	2 8 4

Category	Configuration	ACCIDENT TYPES (Includes Intent)					
I. Single Driver	A. Right Roadside Departure				04	05	
	B. Left Roadside Departure				09	10	
	C. Forward Impact				14	15	16
II. Same Trafficway Same Direction	D. Rear-End				26	28	30
		21	23	25	27	29	(EACH • 32) (EACH • 33)
		STOPPED 21, 22, 23	SLOWER 25, 26, 27	DECEL. 29, 30, 31	31		SPECIFICS OTHER SPECIFICS UNKNOWN
III. Same Trafficway Opposite Direction	E. Forward Impact				39	40	41
		35	37	39	41		(EACH • 42) (EACH • 43)
	F. Sideswipe Angle				47		
IV. Change Trafficway Vehicle Turning	G. Head-On			(EACH • 52)		(EACH • 53)	
				SPECIFICS OTHER		SPECIFICS UNKNOWN	
	H. Forward Impact				59	60	61
V. Intersecting Paths (Vehicle Damage)		55	57	59	61		(EACH • 62) (EACH • 63)
		CONTROL/TRACTION LOSS	CONTROL/TRACTION LOSS	AVOID COLLISION WITH VEH.	AVOID COLLISION WITH OBJECT	SPECIFICS OTHER	SPECIFICS UNKNOWN
	I. Sideswipe/ Angle			(EACH • 66)		(EACH • 67)	
VI. Miscellaneous	J. Turn Across Path				73	74	(EACH • 74) (EACH • 75)
		68	71	70	73	72	SPECIFICS OTHER SPECIFICS UNKNOWN
	K. Turn Into Path				81	82	(EACH • 84) (EACH • 85)
		76	79	78	80	83	SPECIFICS OTHER SPECIFICS UNKNOWN
	L. Straight Paths				89		(EACH • 90)
		86	88		89		SPECIFICS OTHER SPECIFICS UNKNOWN
	M. Backing Etc.			BACKING VEH.	OTHER VEH. OR OBJECT	98	Other Accident Type
						99	Unknown Accident Type
						00	No Impact

29. Basis for Total Delta V (highest)

Delta V Calculated

(1) CRASH program—damage only routine
 (2) CRASH program—damage and trajectory routine
 (3) Missing vehicle algorithm

Delta V Not Calculated

(4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
 (5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.
 (6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

COMPUTER GENERATED DELTA V

Secondary Highest

30. Total Delta V

18

____ Nearest mph

(NOTE: 00 means less than 0.5 mph)
 (97) 96.5 mph and above
 (99) Unknown

31. Longitudinal Component of Delta V

+ 0 17

____ Nearest mph

(NOTE: 00 means greater than -0.5 and less than +0.5 mph)
 (±97) ±96.5 mph and above
 (99) Unknown

Secondary Highest

0 06

32. Lateral Component of Delta V

____ Nearest mph

(NOTE: 00 means greater than -0.5 and less than +0.5 mph)
 (±97) ±96.5 mph and above
 (99) Unknown

33. Energy Absorption

036, 80036819 Nearest 100 foot-lbs

(NOTE: 0000 means less than 50 foot-lbs)
 (9997) 999,650 foot-lbs or more
 (9999) Unknown

34. Confidence In Reconstruction Program Results (For Highest Delta V)

(0) No reconstruction
 (1) Collision fits model — results appear reasonable
 (2) Collision fits model — results appear high
 (3) Collision fits model — results appear low
 (4) Borderline reconstruction — results appear reasonable

35. Type of Vehicle Inspection

(0) No inspection
 (1) Complete inspection
 (2) Partial inspection (specify):

36. Is this an AOPS Vehicle?

(0) No
 (1) Yes

0IS OLDMISS APPLICABLE FOR THIS VEHICLE? [] YES [] NO

IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [] YES [] NO

<p>37. Police Reported Other Drug Presence <u>Q</u></p> <p>(0) No other drugs present (1) Yes (other drug present) (7) Not reported (8) No driver present (9) Unknown</p>	<p>DRUG EVALUATION CLASSIFICATION OTHER DRUGS TEST RESULTS FOR DRIVER</p> <table border="1"> <thead> <tr> <th></th> <th>DEC Test Results</th> <th>Observation/ Perception</th> <th>Specimen Test Results</th> </tr> </thead> <tbody> <tr> <td>Narcotic Drug</td> <td>40. <u>Q</u></td> <td>41. <u>Q</u></td> <td></td> </tr> <tr> <td>Depressant Drug</td> <td>42. <u>Q</u></td> <td>43. <u>Q</u></td> <td></td> </tr> <tr> <td>Stimulant Drug</td> <td>44. <u>Q</u></td> <td>45. <u>Q</u></td> <td></td> </tr> <tr> <td>Hallucinogen Drug</td> <td>46. <u>Q</u></td> <td>47. <u>Q</u></td> <td></td> </tr> <tr> <td>Cannabinoid Drug</td> <td>48. <u>Q</u></td> <td>49. <u>Q</u></td> <td></td> </tr> <tr> <td>Phencyclidine (PCP)</td> <td>50. <u>Q</u></td> <td>51. <u>Q</u></td> <td></td> </tr> <tr> <td>Inhalant Drug</td> <td>52. <u>Q</u></td> <td>53. <u>Q</u></td> <td></td> </tr> <tr> <td>Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)</td> <td>54. <u>Q</u></td> <td>55. <u>Q</u></td> <td></td> </tr> </tbody> </table>		DEC Test Results	Observation/ Perception	Specimen Test Results	Narcotic Drug	40. <u>Q</u>	41. <u>Q</u>		Depressant Drug	42. <u>Q</u>	43. <u>Q</u>		Stimulant Drug	44. <u>Q</u>	45. <u>Q</u>		Hallucinogen Drug	46. <u>Q</u>	47. <u>Q</u>		Cannabinoid Drug	48. <u>Q</u>	49. <u>Q</u>		Phencyclidine (PCP)	50. <u>Q</u>	51. <u>Q</u>		Inhalant Drug	52. <u>Q</u>	53. <u>Q</u>		Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. <u>Q</u>	55. <u>Q</u>	
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<p>38. Police Reported Observation/Perception Test Type For Driver <u>Q</u></p> <p>(0) No observation/perception test given (1) Drug recognition technician (DRT) determination using DEC process (2) Behavioral (3) Other physical observation/perception determination (specify): (4) DEC process available, unknown if determination made (5) DEC process not available, unknown if other observation/perception test given (7) Other observation/perception test (specify): (8) No driver present</p>	<p>Codes For Observation/Perception Test Results</p> <p>(0) No DEC observation/perception test given (1) Passed DEC observation/perception test (2) Failed DEC observation/perception test (3) DEC observation/perception test given— results unknown (8) No driver present (9) Unknown if DEC observation/perception test given</p>																																				
<p>39. Other Drug Specimen Test Type For Driver <u>Q</u></p> <p>(0) No specimen test given (1) Blood test (2) Urine test (3) Other specimen tests (specify): (7) Unspecified specimen test (8) No driver present (9) Unknown if specimen test given</p>	<p>Codes for Specimen Test Results</p> <p>(0) No specimen test given (1) Drug not found in specimen (2) Drug found in specimen (7) Specimen test given, results unknown or not obtained (8) No driver present (9) Unknown if specimen test given</p>																																				

OTHER DATA

56. Driver's Zip Code

(00000) Driver not present
 (00001) Driver not a resident of U.S. or territories
 Code actual 5-digit zip code
 (99999) Unknown

57. Driver's Race/Ethnic Origin

(0) Driver not present
 (1) White (non-Hispanic)
 (2) Black (non-Hispanic)
 (3) White (Hispanic)
 (4) Black (Hispanic)
 (5) American Indian, Eskimo or Aleut
 (6) Asian or Pacific Islander
 (8) Other (specify):
 (9) Unknown

58. Vehicle Special Use (This Trip)

(0) No special use
 (1) Taxi
 (2) Vehicle used as school bus
 (3) Vehicle used as other bus
 (4) Military
 (5) Police
 (6) Ambulance
 (7) Hearse
 (8) Fire truck or car
 (9) Unknown

ROLLOVER DATA

If GV07 (Body Type) ≠ 1-49, leave GV59-GV63 blank.
 If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.
 If GV24 = 9, then GV59-GV63 must equal 9.

59. Rollover Initiation Type

(0) No rollover
 (1) Trip-over
 (2) Flip-over
 (3) Turn-over
 (4) Climb-over
 (5) Fall-over
 (6) Bounce-over
 (7) Collision with another vehicle
 (8) Other rollover initiation type (specify):
 (9) Unknown rollover initiation type

60. Location of Rollover Initiation

(0) No rollover
 (1) On roadway
 (2) On shoulder—paved
 (3) On shoulder—unpaved
 (4) On roadside or divided trafficway median
 (9) Unknown

61. Rollover Initiation Object Contacted

O O

62. Location on Vehicle Where Initial Principal Tripping Force Is Applied

O

(0) No rollover
 (1) Wheels/tires
 (2) Side plane
 (3) End plane
 (4) Undercarriage
 (5) Other location on vehicle (specify):
 (8) Non-contact rollover forces (specify):
 (9) Unknown

63. Direction of Initial Roll

O

(0) No rollover
 (1) Roll right - primarily about the longitudinal axis
 (2) Roll left - primarily about the longitudinal axis
 (5) End-over-end (i.e., primarily about the lateral axis)
 (9) Unknown roll direction

PRECRASH DATA

64. Pre-Event Movement (Prior to Recognition of Critical Event)

O I

(01) Going straight
 (02) Slowing or stopping in traffic lane
 (03) Starting in traffic lane
 (04) Stopped in traffic lane
 (05) Passing or overtaking another vehicle
 (06) Disabled or parked in travel lane
 (07) Leaving a parking position
 (08) Entering a parking position
 (09) Turning right
 (10) Turning left
 (11) Making a U-turn
 (12) Backing up (other than for parking position)
 (13) Negotiating a curve
 (14) Changing lanes
 (15) Merging
 (16) Successful avoidance maneuver to a previous critical event
 (17) Other (specify):
 (98) No driver present
 (99) Unknown

CODES FOR ROLLOVER INITIATION OBJECT CONTACTED

(00) No rollover
(01-30) — Vehicle Number

Noncollision

(31) Turn-over — fall-over
(33) Jackknife

Collision With Fixed Object

(41) Tree (\leq 4 inches in diameter)
(42) Tree ($>$ 4 inches in diameter)
(43) Shrubbery or bush
(44) Embankment
(45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

(50) Pole or post (\leq 4 inches in diameter)
(51) Pole or post ($>$ 4 inches but \leq 12 inches in diameter)
(52) Pole or post ($>$ 12 inches in diameter)
(53) Pole or post (diameter unknown)
(54) Concrete traffic barrier
(55) Impact attenuator
(56) Other traffic barrier (includes guardrail)
(specify): _____

(57) Fence
(58) Wall
(59) Building
(60) Ditch or culvert
(61) Ground
(62) Fire hydrant
(63) Curb
(64) Bridge
(68) Other fixed object (specify):

(69) Unknown fixed object

Collision with Nonfixed Object

(71) Motor vehicle not in-transport
(76) Animal
(77) Train
(78) Trailer, disconnected in transport
(88) Other nonfixed object (specify):

(89) Unknown nonfixed object

(98) Other event (specify):

(99) Unknown event or object

PRECRASH DATA (Continued)

65. Critical Precrash Event 67*This Vehicle Loss of Control Due To:*

- (01) Blow out or flat tire
- (02) Stalled engine
- (03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
- (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
- (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
- (06) Traveling too fast for conditions
- (08) Other cause of control loss (specify): _____
- (09) Unknown cause of control loss

This Vehicle Traveling

- (10) Over the lane line on left side of travel lane
- (11) Over the lane line on right side of travel lane
- (12) Off the edge of the road on the left side
- (13) Off the edge of the road on the right side
- (14) End departure
- (15) Turning left at intersection
- (16) Turning right at intersection
- (17) Crossing over (passing through) intersection
- (19) Unknown travel direction

Other Motor Vehicle In Lane

- (50) Stopped
- (51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
- (52) Traveling in same direction with higher speed
- (53) Traveling in opposite direction
- (54) In crossover
- (55) Backing
- (59) Unknown travel direction of other motor vehicle in lane

Other Motor Vehicle Encroaching Into Lane

- (60) From adjacent lane (same direction)—over left lane line
- (61) From adjacent lane (same direction)—over right lane line
- (62) From opposite direction—over left lane line
- (63) From opposite direction—over right lane line
- (64) From parking lane
- (65) From crossing street, turning into same direction
- (66) From crossing street, across path
- (67) From crossing street, turning into opposite direction
- (68) From crossing street, intended path not known
- (70) From driveway, turning into same direction
- (71) From driveway, across path
- (72) From driveway, turning into opposite direction
- (73) From driveway, intended path not known
- (74) From entrance to limited access highway
- (78) Encroachment by other vehicle—details unknown

Pedestrian or Pedalcyclist, or Other Nonmotorist

- (80) Pedestrian in roadway
- (81) Pedestrian approaching roadway
- (82) Pedestrian—unknown location
- (83) Pedalcyclist or other nonmotorist in roadway (specify): _____
- (84) Pedalcyclist or other nonmotorist approaching roadway (specify): _____
- (85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

Object or Animal

- (87) Animal in roadway
- (88) Animal approaching roadway
- (89) Animal—unknown location
- (90) Object in roadway
- (91) Object approaching roadway
- (92) Object—unknown location
- (98) Other critical precrash event (specify): _____
- (99) Unknown

For Corrective Actions Attempted see variable GV14
(Attempted Avoidance Manuever)

66. Precrash Stability After Avoidance Maneuver 1

- (0) No avoidance maneuver
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify): _____
- (8) No driver present
- (9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Maneuver (Corrective Action) 1

- (0) No avoidance maneuver
- (1) Vehicle stayed in travel lane where avoidance maneuver was initiated
- (2) Vehicle stayed on roadway but left travel lane where avoidance maneuver was initiated
- (3) Vehicle stayed on roadway, not known if left travel lane where avoidance maneuver was initiated
- (4) Vehicle departed roadway
- (5) Avoidance maneuver initiated off roadway
- (8) No driver present
- (9) Directional consequences unknown

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35=0), ***
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.



EXTERIOR VEHICLE FORM

1. Primary Sampling Unit Number	_____	3. Vehicle Number	02
2. Case Number - Stratum	92-22		

VEHICLE IDENTIFICATION

VIN 1X27D7W _____ Model Year 77

Vehicle Make (specify): CHEVROLET Vehicle Model (specify): NOVA

LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L
1	FULL BUMPER WIDTH	FULL BUMPER WIDTH
2	(B) SIDE SURFACE, STARTS 8" FORWARD OF RF AXLE, EXTENDS 114.75" REARWARD	SAME AS DIRECT

CRUSH PROFILE

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure and document on the vehicle diagram the location of maximum crush.

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

VEHICLE DAMAGE SKETCH

TIRE—WHEEL DAMAGE		ORIGINAL SPECIFICATIONS	WHEEL STEER ANGLES (For locked front wheels or displaced rear axles only)
a. Rotation physically restricted	b. Tire deflated	Wheelbase <u>111.0</u>	RF \pm <u> </u> o LF \pm <u> </u> o RR \pm <u> </u> o LR \pm <u> </u> o Within \pm 5 degrees
RF <u>2</u>	RF <u>2</u>	Overall Length <u>196.7</u>	
LF <u>2</u>	LF <u>2</u>	Maximum Width <u>72.2</u>	
RR <u>2</u>	RR <u>2</u>	Curb Weight <u>3284</u>	
LR <u>2</u>	LR <u>2</u>	Average Track <u>60.15</u>	
(1) Yes (2) No (8) NA (9) Unk.		Front Overhang	
TYPE OF TRANSMISSION		Rear Overhang	
<input type="checkbox"/> Manual <input checked="" type="checkbox"/> Automatic		Engine Size: cyl./displ. <u>6/250 c.i.d.</u>	
		Undeformed End Width	Approximate Cargo Weight <u>N/A</u>

NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

CDC WORKSHEET

CODES FOR OBJECT CONTACTED

(01-30) — Vehicle Number

(57) Fence

Noncollision

(58) Wall

(31) Overturn — rollover

(59) Building

(32) Fire or explosion

(60) Ditch or culvert

(33) Jackknife

(61) Ground

(34) Other intraunit damage (specify):

(62) Fire hydrant

(35) Noncollision injury

(63) Curb

(38) Other noncollision (specify):

(64) Bridge

(39) Noncollision — details unknown

(68) Other fixed object (specify):

(69) Unknown fixed object

Collision With Fixed Object

Collision with Nonfixed Object

(41) Tree (\leq 4 inches in diameter)

(71) Motor vehicle not in-transport

(42) Tree ($>$ 4 inches in diameter)

(72) Pedestrian

(43) Shrubbery or bush

(73) Cyclist or cycle

(44) Embankment

(74) Other nonmotorist or conveyance

(45) Breakaway pole or post (any diameter)

(75) Vehicle occupant

Nonbreakaway Pole or Post

(76) Animal

(50) Pole or post (\leq 4 inches in diameter)

(77) Train

(51) Pole or post ($>$ 4 inches but \leq 12 inches in diameter)

(78) Trailer, disconnected in transport

(52) Pole or post ($>$ 12 inches in diameter)

(88) Other nonfixed object (specify):

(53) Pole or post (diameter unknown)

(89) Unknown nonfixed object

(54) Concrete traffic barrier

(98) Other event (specify):

(55) Impact attenuator

(99) Unknown event or object

(56) Other traffic barrier (includes guardrail) (specify):

DEFORMATION CLASSIFICATION BY EVENT NUMBER

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force (degrees)	Incremental Value of Shift	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
01	01	030	00	F	A	E	W	02
02	01	090	00	R	Y	E	W	01

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>O 1</u>	5. <u>O 1</u>	6. <u>O 1</u>	7. <u>F</u>	8. <u>D</u>	9. <u>E</u>	10. <u>W</u>	11. <u>O 2</u>

Second Highest Delta "V"

12. O 2 13. O 1 14. O 3 15. R 16. Y 17. E 18. W 19. O 1

CRUSH PROFILE

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN INCHES.)

HIGHEST DELTA "V"

20. <u>L</u>	21. <u>C₁</u>	22. <u>C₂</u>	23. <u>C₃</u>	24. <u>C₄</u>	25. <u>C₅</u>	26. <u>C₆</u>	27. <u>±D</u>
<u>067</u>	<u>03</u>	<u>04</u>	<u>06</u>	<u>09</u>	<u>11</u>	<u>15</u>	<u>±000</u>

Second Highest Delta "V"

23. <u>L</u>	24. <u>C₁</u>	25. <u>C₂</u>	26. <u>C₃</u>	27. <u>C₄</u>	28. <u>C₅</u>	29. <u>C₆</u>	30. <u>±D</u>
<u>115</u>	<u>00</u>	<u>00</u>	<u>00</u>	<u>01</u>	<u>00</u>	<u>00</u>	<u>±006</u>

26. Are CDCs Documented but Not Coded on The Automated File? (0) No (1) Yes	27. Researcher's Assessment of Vehicle Disposition (0) Not towed due to vehicle damage (1) Towed due to vehicle damage (9) Unknown	28. Original Wheelbase <u>111.0</u> Code to the nearest tenth of an inch (9999) Unknown
---	---	--

<p>29. Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle? <input checked="" type="radio"/></p> <p>(0) No post manufacturer modifications (1) Yes - post manufacturer modifications (specify): _____ (Include photograph of CERTIFICATION PLACARD in case report) (9) Unknown if vehicle is modified</p> <p>30. Fire Occurrence <input checked="" type="radio"/></p> <p>(0) No fire Yes, fire occurred (1) Minor (2) Major (9) Unknown</p>	<p>31. Origin of Fire <input checked="" type="radio"/></p> <p>(0) No fire (1) Vehicle exterior (front, side, back, top) (2) Exhaust system (3) Fuel tank (and other fuel retention system parts) (4) Engine compartment (5) Cargo/trunk compartment (6) Instrument panel (7) Passenger compartment area (8) Other location (specify): _____ (9) Unknown</p> <p>32. Type of Fuel Tank <input checked="" type="radio"/></p> <p>(0) No fuel tank (electrical vehicle) (1) Metallic (2) Non-metallic (9) Unknown</p>
---	---

*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED AND WAS NOT AN AOPS ***
(I.E., GV09=0 OR 9 AND GV36=0), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.



INTERIOR VEHICLE FORM

GLAZING

Glazing Damage from Impact Forces

15. WS 2 16. LF 17. RF 18. LR 19. RR

20. BL 21. Roof 8 22. Other 8

- (0) No glazing damage from impact forces
- (1) Glazing in place and cracked from impact forces
- (2) Glazing in place and holed from impact forces
- (3) Glazing out-of-place (cracked or not) and not holed from impact forces
- (4) Glazing out-of-place and holed from impact forces
- (5) Glazing disintegrated from impact forces
- (6) Glazing removed prior to accident
- (7) No glazing
- (8) Unknown if damaged

Glazing Damage from Occupant Contact

23. WS 2 24. LF 25. RF 26. LR 27. RR

28. BL 29. Roof 30. Other

- (0) No occupant contact to glazing or no glazing
- (1) Glazing contacted by occupant but no glazing damage
- (2) Glazing in place and cracked by occupant contact
- (3) Glazing in place and holed by occupant contact
- (4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact
- (5) Glazing out-of-place by occupant contact and holed by occupant contact
- (6) Glazing disintegrated by occupant contact
- (7) Unknown if contacted by occupant

If No Glazing Damage *And* No Occupant Contact or No Glazing, Then Code IV31 Through IV46 As 0

Type of Window/Windshield Glazing

31. WS 32. LF 2 33. RF 2 34. LR 2 35. RR 2

36. BL 2 37. Roof 38. Other

- (0) No glazing contact and no damage, or no glazing
- (1) AS-1 — Laminated
- (2) AS-2 — Tempered
- (3) AS-3 — Tempered-tinted
- (4) AS-14 — Glass/Plastic
- (8) Other (specify): _____

(9) Unknown _____

Window Precrash Glazing Status

39. WS 40. LF 4 41. RF 2 42. LR 43. RR

44. BL 45. Roof 46. Other

- (0) No glazing contact and no damage, or no glazing
- (1) Fixed
- (2) Closed
- (3) Partially opened
- (4) Fully opened
- (9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then code 0

10. LF 11. RF 12. LR 13. RR 14. TG/H

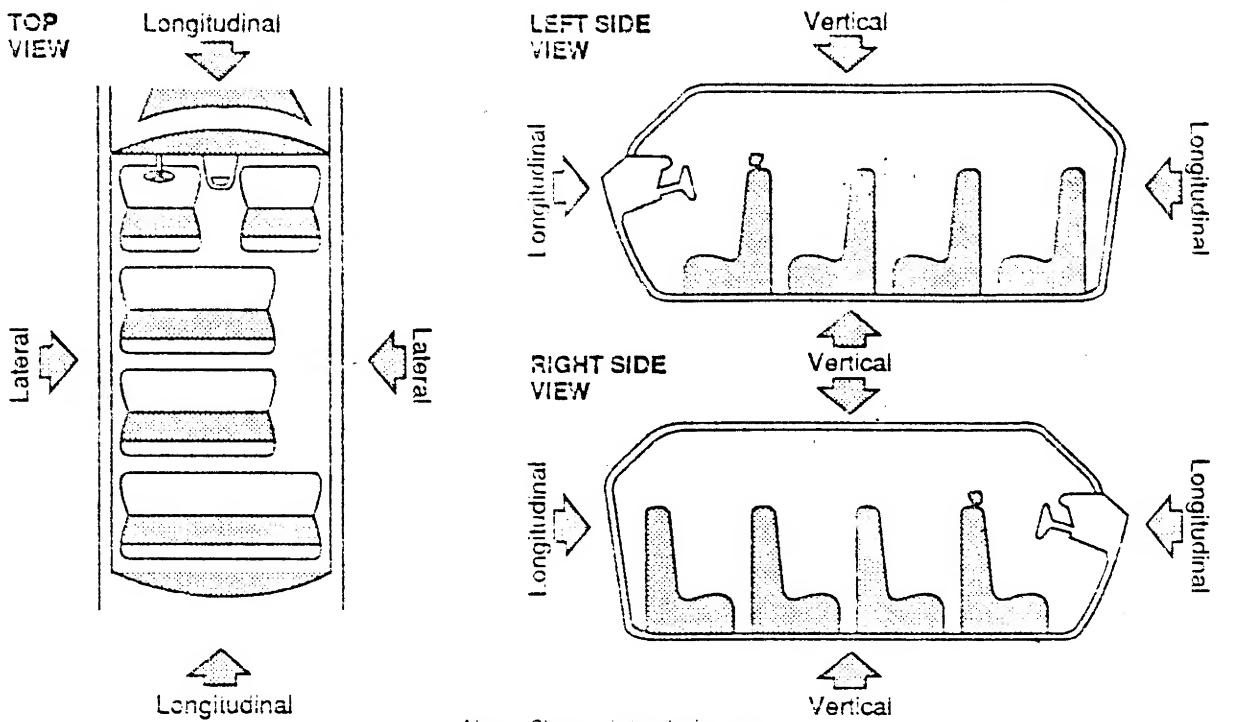
- (0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision

- (1) Door operational (no damage)
- (2) Latch/striker failure due to damage
- (3) Hinge failure due to damage
- (4) Door structure failure due to damage
- (5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage
- (6) Latch/striker and hinge failure due to damage
- (8) Other failure (specify): _____

(9) Unknown _____

INTRUSION WORKSHEET



LOCATION OF INTRUSION	INTRUDED COMPONENT	COMPARISON VALUE	INTRUDED VALUE	INTRUSION	DOMINANT CRUSH DIRECTION
		-	=		
		-	=		
		-	=		
		-	=		
		-	=		
		-	=		
		-	=		
		-	=		
		-	=		
		-	=		
		-	=		
		-	=		
		-	=		
		-	=		
		-	=		
		-	=		

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.				
	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. _____	48. _____	49. _____	50. _____
2nd	51. _____	52. _____	53. _____	54. _____
3rd	55. _____	56. _____	57. _____	58. _____
4th	59. _____	60. _____	61. _____	62. _____
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

LOCATION OF INTRUSION

Front Seat	Fourth Seat
(11) Left	(41) Left
(12) Middle	(42) Middle
(13) Right	(43) Right
Second Seat	(97) Catastrophic
(21) Left	(98) Other enclosed area (specify)
(22) Middle	
(23) Right	
Third Seat	(99) Unknown
(31) Left	
(32) Middle	
(33) Right	

INTRUDING COMPONENT

Interior Components

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Door panel (side)
- (12) Roof (or convertible top)
- (13) Roof side rail
- (14) Windshield
- (15) Windshield header
- (16) Window frame
- (17) Floor pan (includes sill)
- (18) Backlight header
- (19) Front seat back
- (20) Second seat back
- (21) Third seat back
- (22) Fourth seat back
- (23) Fifth seat back
- (24) Seat cushion
- (25) Back door/panel (e.g., tailgate)
- (26) Other interior component (specify):

- (27) Side panel - forward of the A-pillar
- (28) Side panel - rear of the A-pillar

Exterior Components

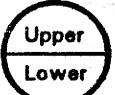
- (30) Hood
- (31) Outside surface of this vehicle (specify):
- (32) Other exterior object in the environment (specify):
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify):
- (99) Unknown

MAGNITUDE OF INTRUSION

- (1) ≥ 1 inch but < 3 inches
- (2) ≥ 3 inches but < 6 inches
- (3) ≥ 6 inches but < 12 inches
- (4) ≥ 12 inches but < 18 inches
- (5) ≥ 18 inches but < 24 inches
- (6) ≥ 24 inches
- (7) Catastrophic
- (9) Unknown

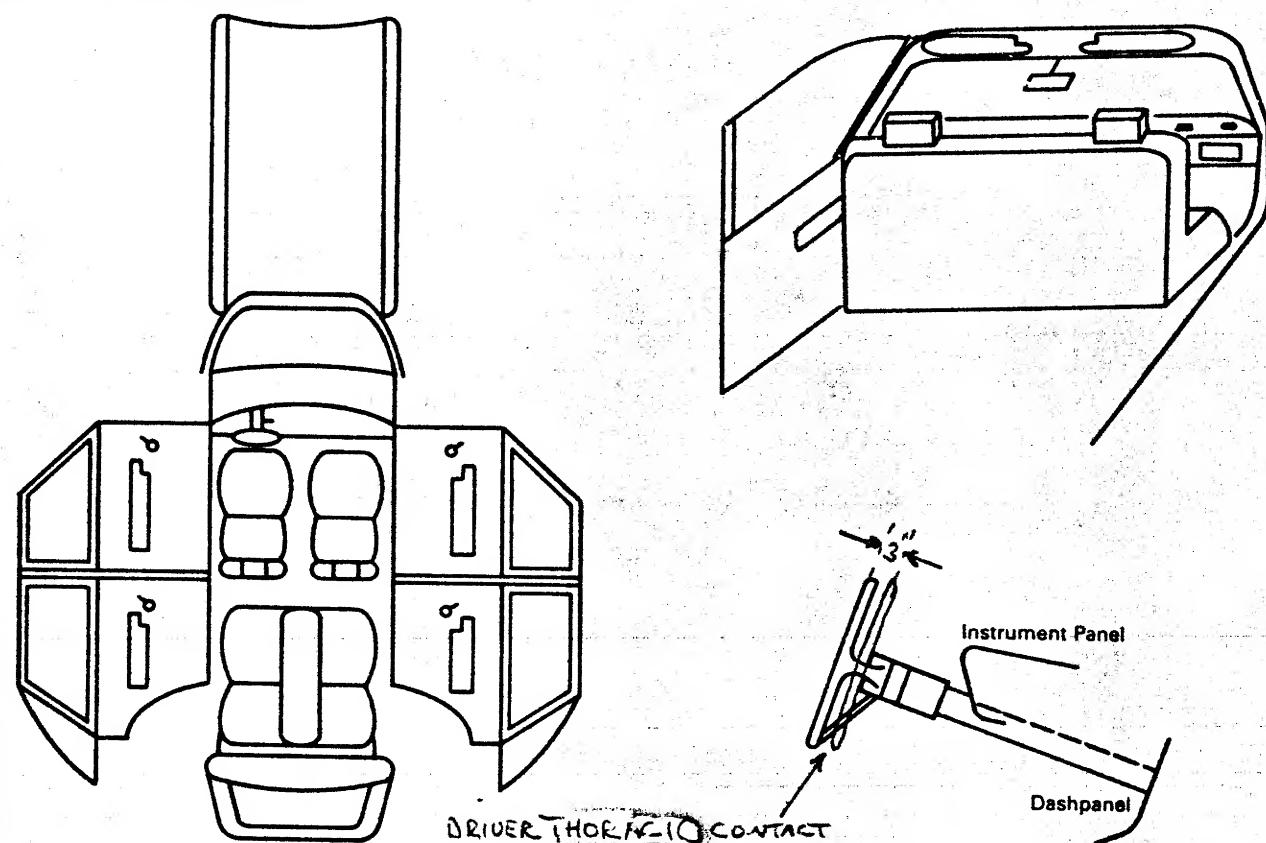
DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

STEERING COLUMN			
87. Steering Column Type	1		
(1) Fixed column (2) Tilt column (3) Telescoping column (4) Tilt and telescoping column (8) Other column type (specify): (9) Unknown			
<u>DOORS LOCKED, NO KEYS</u>			
88. Blank (This variable is left blank so that numbering consistency can be maintained with the 1988-91 CDS.)	<u>X X</u>		
89. Blank (This variable is left blank so that numbering consistency can be maintained with the 1988-91 CDS.)	<u>X X X</u>		
90. Blank (This variable is left blank so that numbering consistency can be maintained with the 1988-91 CDS.)	<u>X X X</u>		
91. Blank (This variable is left blank so that numbering consistency can be maintained with the 1988-91 CDS.)	<u>X X X</u>		
92. Steering Rim/Spoke Deformation Code actual measured deformation to the nearest inch. (0) No steering rim deformation (1-5) Actual measured value (6) 6 inches or more (8) Observed deformation cannot be measured (9) Unknown			
93. Location of Steering Rim/Spoke Deformation (00) No steering rim deformation			
<i>Quarter Sections</i>			
(01) Section A 			
(02) Section B			
(03) Section C			
(04) Section D			
<i>Half Sections</i>			
(05) Upper half of rim/spoke 			
(06) Lower half of rim/spoke			
(07) Left half of rim/spoke 			
(08) Right half of rim/spoke			
(09) Complete steering wheel collapse			
(10) Undetermined location			
(99) Unknown			
INSTRUMENT PANEL			
94. Odometer Reading	<u>9 9 9 ,000</u>		
____ miles—Code mileage to the nearest 1,000 miles			
(000) No odometer			
(001) Less than 1,500 miles			
(300) 299,500 miles or more			
(999) Unknown			
Source: _____			
95. Instrument Panel Damage from Occupant Contact?	0		
(0) No			
(1) Yes			
(9) Unknown			
96. Knee Bolsters Deformed from Occupant Contact?	8		
(0) No			
(1) Yes			
(8) Not present			
(9) Unknown			
97. Did Glove Compartment Door Open During Collision(s)?	0		
(0) No			
(1) Yes			
(8) Not present			
(9) Unknown			

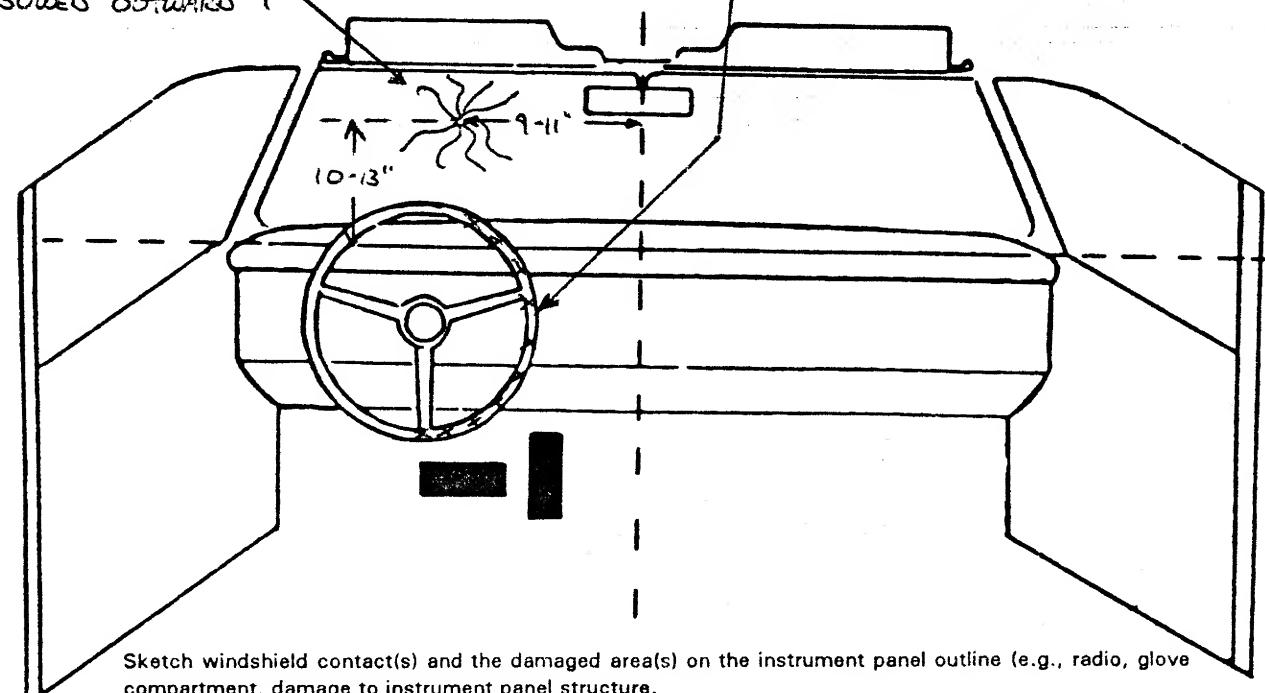
VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



FOREHEAD CONTACT
TO WINDSHIELD, GLASS
BOWED OUTWARD 1"

DRIVER THORACIC CONTACT
TO (R) SIDE OF STR. WHEEL
RIM, 3" OF BENDING



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).

Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.

Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

POINTS OF OCCUPANT CONTACT					
Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	01	1	FOREHEAD	CRACKED, BOWED OUTWARD 1"	
B	04	1	NECK	3" OF R.M. DEFORMATION	
C					
D					
E					
F					
G					
H					
I					
J					
K					
L					
M					
N					

CODES FOR INTERIOR COMPONENTS

FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)
- (16) Other front object (specify): _____

LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A pillar
- (23) Left B pillar
- (24) Other left pillar (specify): _____
- (25) Left side window glass or frame

- (26) Left side window glass including one or more of the following: frame, window sill, A pillar, B pillar, or roof side rail.
- (27) Other left side object (specify): _____
- (28) Left side window sill

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A pillar
- (33) Right B pillar
- (34) Other right pillar (specify): _____
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A pillar, B pillar, or roof side rail.
- (37) Other right side object (specify): _____
- (38) Right side window sill

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify): _____
- (44) Head restraint system
- (45) Air bag
- (46) Other occupants (specify): _____
- (47) Interior loose objects

- (48) Child safety seat (specify): _____
- (49) Other interior object (specify): _____

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): _____

CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number		NOT	APPLICABLE			
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					
<p>1. Type of Child Safety Seat</p> <p>(0) No child safety seat (1) Infant seat (2) Toddler seat (3) Convertible seat (4) Booster seat (7) Other type child safety seat (specify): _____ (8) Unknown child safety seat type (9) Unknown if child safety seat used</p> <p>2. Child Safety Seat Orientation</p> <p>(0) No child safety seat Designed for Rear Facing for This Age/Weight (01) Rear facing (02) Forward facing (08) Other orientation (specify): _____ (09) Unknown orientation Designed for Forward Facing for This Age/Weight (11) Rear facing (12) Forward facing (18) Other orientation (specify): _____ (19) Unknown orientation Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight (21) Rear facing (22) Forward facing (28) Other orientation (specify): _____ (29) Unknown orientation (99) Unknown if child safety seat used</p> <p>3. Child Safety Seat Harness Usage</p> <p>4. Child Safety Seat Shield Usage</p> <p>5. Child Safety Seat Tether Usage</p> <p>Note: Options Below Are Used for Variables 3-5.</p> <p>(00) No child safety seat Not Designed with Harness/Shield/Tether (01) After market harness/shield/tether added, not used (02) After market harness/shield/tether used (03) Child safety seat used, but no after market harness/shield/tether added (09) Unknown if harness/shield/tether added or used Designed With Harness/Shield/Tether (11) Harness/shield/tether not used (12) Harness/shield/tether used (19) Unknown if harness/shield/tether used Unknown If Designed With Harness/Shield/Tether (21) Harness/shield/tether not used (22) Harness/shield/tether used (29) Unknown if harness/shield/tether used (99) Unknown if child safety seat used</p> <p>6. Child Safety Seat Make/Model</p> <p>(Specify make/model and occupant number)</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>						

MANUAL RESTRAINTS

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a Child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
F I R S T	Availability	4	3	4
	Use	00	-	-
	Failure Modes	0	-	-
S E C O N D	Availability	3	3	3
	Use	-	-	-
	Failure Modes	-	-	-
T H I R D	Availability			
	Use			
	Failure Modes			
O T H E R	Availability			
	Use			
	Failure Modes			

Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): _____

(9) Unknown _____

Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify): _____
- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown

(08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat - type unknown
- (18) Other belt used with child safety seat (specify): _____
- (99) Unknown if belt used _____

Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____
- (6) Broken retractor
- (7) Combination of above (specify): _____
- (8) Other manual belt failure (specify): _____
- (9) Unknown _____

AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

AIR BAGS

C		Left	Right
I R S T	Availability/Function	<input type="radio"/>	<input type="radio"/>
	Deployment	<input type="radio"/>	<input type="radio"/>
	Failure	<input type="radio"/>	<input type="radio"/>
Air Bag System Availability/Function		Air Bag System Deployment	
(0) Not equipped/not available (1) Air bag <i>Non-functional</i> (2) Air bag disconnected (specify): (3) <u>Air bag not reinstalled</u> (9) Unknown		(0) Not equipped/not available (1) Air bag deployed during accident (as a result of impact) (2) Air bag deployed inadvertently just prior to accident (3) Air bag deployed, accident sequence undetermined (4) Nondeployed (5) Unknown if deployed (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical) (9) Unknown	
		Did Air Bag System Fail?	
		(0) Not equipped/not available (1) No (2) Yes (specify): (9) <u>Unknown</u>	

AUTOMATIC BELTS

C		Left	Right
F I R S T	Availability/Function	<input type="radio"/>	<input type="radio"/>
	Use	<input type="radio"/>	<input type="radio"/>
	Type	<input type="radio"/>	<input type="radio"/>
	Proper Use	<input type="radio"/>	<input type="radio"/>
	Failure Modes	<input type="radio"/>	<input type="radio"/>
Automatic (Passive) Belt System Availability/Function		Proper Use of Automatic (Passive) Belt System	
(0) Not equipped/not available (1) 2 point automatic belts (2) 3 point automatic belts (3) Automatic belts - type unknown <i>Non-functional</i> (4) Automatic belts destroyed or rendered inoperative (9) Unknown		(0) Not equipped/not available/not used (1) Automatic belt used properly (2) Automatic belt used properly with child safety seat Automatic Belt Used Improperly (3) Automatic shoulder belt worn under arm (4) Automatic shoulder belt worn behind back (5) Automatic belt worn around more than one person (6) Lap portion of automatic belt worn on abdomen (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): (8) Other improper use of automatic belt system (specify): (9) Unknown	
		Automatic (Passive) Belt Failure Modes During Accident	
		(0) Not equipped/not available/not in use (1) No automatic belt failure(s) (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify): (6) Broken retractor (7) Combination of above (specify): (8) Other automatic belt failure (specify): (9) Unknown	
Automatic (Passive) Belt System Use			
(0) Not equipped/not available/destroyed or rendered inoperative (1) Automatic belt in use (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (3) Automatic belt use unknown (9) Unknown			
Automatic (Passive) Belt System Type			
(0) Not equipped/not available (1) Non-motorized system (2) Motorized system (9) Unknown			

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
F I R S T	Head Restraint Type/Damage	3	0	3
	Seat Type	05	05	05
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
S E C O N D	Head Restraint Type/Damage	0	0	0
	Seat Type	03	03	03
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
T H I R D	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
O T H E R	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			

Head Restraint Type/Damage by Occupant at This Occupant Position

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other Specify: _____
- (9) Unknown

Seat Performance (this Occupant Position)

- (0) No seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed specify: _____
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): _____
- (7) Combination of above (specify): _____
- (8) Other (specify): _____
- (9) Unknown

Seat Type (this Occupant Position)

- (00) No seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): _____
- (10) Box mounted seat (i.e., van type)
- (99) Unknown

Seat Orientation (this Occupant Position)

- (0) No seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): _____
- (9) Unknown

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

EJECTION No Yes

Describe indications of ejection and body parts involved in partial ejection(s):

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection (1) Complete ejection (1) Partial ejection (3) Ejection, Unknown degree (9) Unknown	(7) Roof (8) Other area (e.g., back of pickup, etc.) (specify): <hr/> (9) Unknown	(5) Integral structure (8) Other medium (specify): <hr/> (9) Unknown
Ejection Area (1) Windshield (2) Left front (3) Right front (4) Left rear (5) Right rear (6) Rear	Ejection Medium (1) Door/hatch/tailgate (2) Nonfixed roof structure (3) Fixed glazing (4) Nonfixed glazing (specify): <hr/>	Medium Status (Immediately Prior to Impact) (1) Open (2) Closed (3) Integral structure (9) Unknown

ENTRAPMENT No Yes

Describe entrapment mechanism:

Component(s):

(Note in vehicle interior diagram)

APPENDIX G

NASS Occupant Forms

(Vehicle #2)



U.S. Department of Transportation

National Highway Traffic Safety
Administration

OCCUPANT ASSESSMENT FORM

Form Approved
O.M.B. No. 2127-0021NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number _____

2. Case Number - Stratum 92-22

3. Vehicle Number 02

4. Occupant Number 01

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 29
Code actual age at time of accident.
(00) Less than one year old (specify by month):
(97) 97 years and older
(99) Unknown

6. Occupant's Sex 1
(1) Male
(2) Female
(9) Unknown

7. Occupant's Height 99
Code actual height to the nearest inch.
(99) Unknown

8. Occupant's Weight 99 9
Code actual weight to the nearest pounds.
(999) Unknown

9. Occupant's Role 1
(1) Driver
(2) Passenger
(9) Unknown

10. Occupant's Seat Position 11
Front Seat
(11) Left side
(12) Middle
(13) Right side
(14) Other (specify):
(15) On or in the lap of another occupant

Second Seat
(21) Left side
(22) Middle
(23) Right side
(24) Other (specify):
(25) On or in the lap of another occupant

Third Seat
(31) Left side
(32) Middle
(33) Right side
(34) Other (specify):
(35) On or in the lap of another occupant

Fourth Seat
(41) Left side
(42) Middle
(43) Right side
(44) Other (specify):
(45) On or in the lap of another occupant

(97) In or on unenclosed area
(98) Other seat (specify):
(99) Unknown

11. Occupant Posture 0
(0) Normal posture
(1) Abnormal posture (specify):
(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection 0
(0) No ejection
(1) Complete ejection
(2) Partial ejection
(3) Ejection, unknown degree
(9) Unknown

13. Ejection Area 0
(0) No ejection
(1) Windshield
(2) Left front
(3) Right front
(4) Left rear
(5) Right rear
(6) Rear
(7) Roof
(8) Other area (e.g., back of pickup, etc.)
(specify):
(9) Unknown

14. Ejection Medium 0
(0) No ejection
(1) Door/hatch/tailgate
(2) Nonfixed roof structure
(3) Fixed glazing
(4) Nonfixed glazing (specify):
(5) Integral structure
(8) Other medium (specify):
(9) Unknown

15. Medium Status (Immediately Prior To Impact) 0
(0) No ejection
(1) Open
(2) Closed
(3) Integral structure
(9) Unknown

16. Entrapment 0
(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)
(0) Not entrapped
(1) Entrapped
(9) Unknown

RESTRAINT SYSTEM AND SEAT EVALUATION			
17. Manual (Active) Belt System Availability	4	21. Air Bag System Availability/Function	
(0) None available		(0) Not equipped/not available	
(1) Belt removed/destroyed		(1) Air bag	
(2) Shoulder belt		<i>Non-functional</i>	
(3) Lap belt		(2) Air bag disconnected (specify):	
(4) Lap and shoulder belt		(3) Air bag not reinstalled	
(5) Belt available—type unknown		(9) Unknown	
<i>Integral Belt Partially Destroyed</i>			
(6) Shoulder belt (lap belt destroyed/removed)		22. Air Bag System Deployment	
(7) Lap belt (shoulder belt destroyed/removed)		(0) Not equipped/not available	
(8) Other belt (specify):		(1) Air bag deployed during accident (as a result of impact)	
(9) Unknown		(2) Air bag deployed inadvertently just prior to accident	
18. Manual (Active) Belt System Use	0 0	(3) Air bag deployed, accident sequence undetermined	
(00) None used, not available, or belt removed/destroyed		(4) Nondeployed	
(01) Inoperative (specify):		(5) Unknown if deployed	
(02) Shoulder belt		(6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)	
(03) Lap belt		(9) Unknown	
(04) Lap and shoulder belt		23. Did Air Bag System Fail?	
(05) Belt used—type unknown		(0) Not equipped/not available	
(08) Other belt used (specify):		(1) No	
(12) Shoulder belt used with child safety seat		(2) Yes (specify):	
(13) Lap belt used with child safety seat		(9) Unknown	
(14) Lap and shoulder belt used with child safety seat		Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts	
(15) Belt used with child safety seat—type unknown		24. Police Reported Restraint Use	
(18) Other belt used with child safety seat (specify):		(0) None used	
(99) Unknown if belt used		(1) Police did not indicate restraint use	
19. Proper Use of Manual (Active) Belts	Q	(2) Shoulder belt	
(0) None used or not available		(3) Lap belt	
(1) Belt used properly		(4) Lap and shoulder belt	
(2) Belt used properly with child safety seat		(5) Belt used, type not specified	
<i>Belt Used Improperly</i>		(6) Child safety seat	
(3) Shoulder belt worn under arm		(7) Other or automatic restraint (specify):	
(4) Shoulder belt worn behind back or seat			
(5) Belt worn around more than one person			
(6) Lap belt worn on abdomen			
(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):			
(8) Other improper use of manual belt system (specify):		(8) Restrained, type unknown	
(9) Unknown		(9) Police indicated "unknown"	
20. Manual (Active) Belt Failure Modes	Q	25. Head Restraint Type/Damage by Occupant at This Occupant Position	3
<i>During Accident</i>		(0) No head restraints	
(0) No manual belt used		(1) Integral—no damage	
(1) No manual belt failure(s)		(2) Integral—damaged during accident	
(2) Torn webbing (stretched webbing not included)		(3) Adjustable—no damage	
(3) Broken buckle or latchplate		(4) Adjustable—damaged during accident	
(4) Upper anchorage separated		(5) Add-on—no damage	
(5) Other anchorage separated (specify):		(6) Add-on—damaged during accident	
(6) Broken retractor		(8) Other (specify):	
(7) Combination of above (specify):			
(8) Other manual belt failure (specify):		(9) Unknown	
(9) Unknown			

<p>26. Seat Type (this Occupant Position) <u>05</u></p> <p>(00) Occupant not seated or no seat (01) Bucket (02) Bucket with folding back (03) Bench (04) Bench with separate back cushions (05) Bench with folding back(s) (06) Split bench with separate back cushions (07) Split bench with folding back(s) (08) Pedestal (i.e., column supported) (09) Other seat type (specify): (10) Box mounted seat (i.e., van type) (99) Unknown</p>	<p>30. Child Safety Seat Orientation <u>00</u></p> <p><i>Designed for Rear Facing for This Age/Weight</i> (01) Rear facing (02) Forward facing (08) Other orientation (specify): (09) Unknown orientation</p> <p><i>Designed For Forward Facing for This Age/Weight</i> (11) Rear facing (12) Forward facing (18) Other orientation (specify): (19) Unknown orientation</p> <p><i>Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight</i> (21) Rear facing (22) Forward facing (28) Other orientation (specify): (29) Unknown orientation</p> <p>(99) Unknown if child safety seat used</p>
<p>27. Seat Performance (this Occupant Position) <u>1</u></p> <p>(0) Occupant not seated or no seat (1) No seat performance failure(s) (2) Seat adjusters failed (3) Seat back folding locks or "seat back" failed (4) Seat track/anchors failed (5) Deformed by impact of occupant (6) Deformed by passenger compartment intrusion (specify): (7) Combination of above (specify): (8) Other (specify): (9) Unknown</p>	
CHILD SAFETY SEAT	
<p>28. Child Safety Seat Make/Model <u>00 0</u></p> <p>(000) No child safety seat Applicable codes are found in your NASS CDS Data Collection, Coding and Editing (950) Built-in child safety seat (997) Other make/model (specify): (998) Unknown make/model (999) Unknown if child safety seat used</p>	<p>31. Child Safety Seat Harness Usage <u>00</u></p> <p>32. Child Safety Seat Shield Usage <u>00</u></p> <p>33. Child Safety Seat Tether Usage <u>00</u> Note: Options below applicable to Variables OA31-OA33. (00) No child safety seat</p> <p><i>Not Designed With Harness/Shield/Tether</i> (01) After market harness/shield/tether added, not used (02) After market harness/shield/tether used (03) Child safety seat used, but no after market harness/shield/tether added (09) Unknown if harness/shield/tether added or used</p> <p><i>Designed With Harness/Shield/Tether</i> (11) Harness/shield/tether not used (12) Harness/shield/tether used (19) Unknown if harness/shield/tether used</p>
<p>29. Type of Child Safety Seat <u>0</u></p> <p>(0) No child safety seat (1) Infant seat (2) Toddler seat (3) Convertible seat (4) Booster seat (7) Other type child safety seat (specify): (8) Unknown child safety seat type (9) Unknown if child safety seat used</p>	<p><i>Unknown If Designed With Harness/Shield/Tether</i> (21) Harness/shield/tether not used (22) Harness/shield/tether used (29) Unknown if harness/shield/tether used</p> <p>(99) Unknown if child safety seat used</p>

INJURY CONSEQUENCES

34. Injury Severity (Police Rating)

(0) O - No injury
 (1) C - Possible injury
 (2) B - Nonincapacitating injury
 (3) A - Incapacitating injury
 (4) K - Killed
 (5) U - Injury, severity unknown
 (6) Died prior to accident
 (9) Unknown

3

35. Treatment - Mortality

(0) No treatment
 (1) Fatal
 (2) Fatal - ruled disease

4

Nonfatal

(3) Hospitalization
 (4) Transported and released
 (5) Treatment at scene - nontransported
 (6) Treatment later
 (8) Treatment - other (specify):
 (9) Unknown

36. Type Of Medical Facility (for Initial Treatment)

2

(0) Not treated at a medical facility
 (1) Trauma center
 (2) Hospital
 (3) Medical clinic
 (4) Physician's office
 (5) Treatment later at medical facility
 (8) Other (specify):
 (9) Unknown

37. Hospital Stay

00

(00) Not Hospitalized
 Code the number of days (up through 60) that the occupant stayed in hospital.
 (61) 61 days or more
 (99) Unknown

38. Working Days Lost

Code the number of days (up through 60) that the occupant lost from work due to the accident
 (00) No working days lost
 (61) 61 days or more UNEMPLOYED
 (62) Fatally injured
 (97) Not working prior to accident
 (99) Unknown

00

39. Time to Death

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
 (00) Not fatal
 (96) Fatal - ruled disease
 (99) Unknown

00

40. 1st Medically Reported Cause of Death

00

41. 2nd Medically Reported Cause of Death

00

42. 3rd Medically Reported Cause of Death

00

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
 (00) Not fatal or no additional causes
 (97) Other result (specify):
 (99) Unknown

43. Number of Recorded Injuries for This Occupant

01

Code the actual number of injuries recorded for this occupant.
 (00) No recorded injuries
 (97) Injured, details unknown
 (99) Unknown if injured

AUTOMATIC BELT SYSTEM

44. Automatic (Passive) Belt System Availability/
Function

(0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts - type unknown

Non-functional

(4) Automatic belts destroyed or rendered
inoperative
(9) Unknown

45. Automatic (Passive) Belt System Use

(0) Not equipped/not available/destroyed or
rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually
disconnected, motorized track inoperative)
(specify):

(3) Automatic belt use unknown
(9) Unknown

46. Automatic (Passive) Belt System Type

(0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

47. Proper Use of Automatic (Passive
Belt System)

(0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with
child safety seat

Automatic Belt Used Improperly

(3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than
one person
(6) Lap portion of automatic belt worn
on abdomen
(7) Automatic lap and shoulder belt or
automatic shoulder belt used improperly
with child safety seat (specify):

(8) Other improper use of automatic belt system
(specify):

(9) Unknown

48. Automatic (Passive) Belt Failure Modes
During Accident

(0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify):

(6) Broken retractor
(7) Combination of above (specify):
(8) Other automatic belt failure (specify):

(9) Unknown

49. Seat Orientation (this Occupant Position)

(0) Occupant not seated or no seat
(1) Forward facing seat
(2) Rear facing seat
(3) Side facing seat (inward)
(4) Side facing seat (outward)
(8) Other (specify):

(9) Unknown

TRAUMA DATA

50. Glasgow Coma Scale (GCS) Score 02

(at Medical Facility)

(00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the
initial GCS Score recorded at medical
facility.
(97) Injured, details unknown
(99) Unknown if injured

51. Was the Occupant Given Blood?

(1) No - blood not given
(2) Yes - blood given
(specify units):
(9) Unknown if blood given

52. Arterial Blood Gases (ABG) - HCO_3 1

(00) Not injured
(01) Injured, ABGs not measured or reported
(02-50) Code the actual value of the HCO_3
(96) ABGs reported, HCO_3 unknown
(97) Injured, details unknown
(99) Unknown if injured

UPDATE CANDIDATE? NO YES OCCUPANT INJURY FORM INCLUDED WITH INITIAL SUBMISSION? NO YES

*** STOP HERE ***
IF THERE ARE NO RECORDED INJURIES
(I.E., OA43 = 00,97,99)



OCCUPANT INJURY FORM

1. Primary Sampling Unit Number _____

3. Vehicle Number _____ 02

2. Case Number - Stratum _____ 92-22

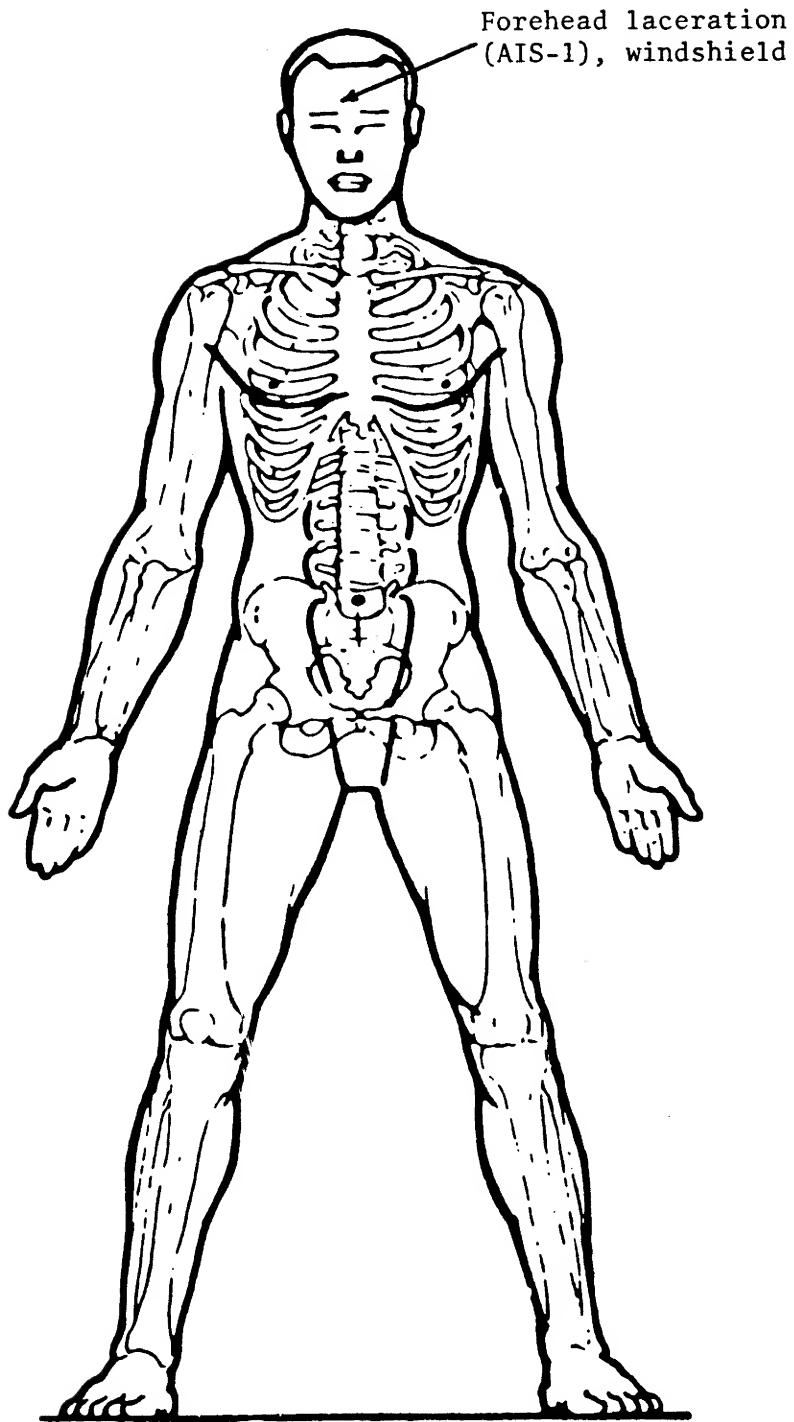
4. Occupant Number _____ 01

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

Source of Injury Data	O.I.C.-A.I.S						Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.	
	Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source				
1st	5. 7	6. F	7. S	8. L	9. I	10. 1	11. 01	12. 1	13. 1	14. 00
2nd	15. _____	16. _____	17. _____	18. _____	19. _____	20. _____	21. _____	22. _____	23. _____	24. _____
3rd	25. _____	26. _____	27. _____	28. _____	29. _____	30. _____	31. _____	32. _____	33. _____	34. _____
4th	35. _____	36. _____	37. _____	38. _____	39. _____	40. _____	41. _____	42. _____	43. _____	44. _____
5th	45. _____	46. _____	47. _____	48. _____	49. _____	50. _____	51. _____	52. _____	53. _____	54. _____
6th	55. _____	56. _____	57. _____	58. _____	59. _____	60. _____	61. _____	62. _____	63. _____	64. _____
7th	65. _____	66. _____	67. _____	68. _____	69. _____	70. _____	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____	79. _____	80. _____	81. _____	82. _____	83. _____	84. _____
9th	85. _____	86. _____	87. _____	88. _____	89. _____	90. _____	91. _____	92. _____	93. _____	94. _____
10th	95. _____	96. _____	97. _____	98. _____	99. _____	100. _____	101. _____	102. _____	103. _____	104. _____

OCCUPANT INJURY DATA



AGE 29
SEX Male
WT. _____
HT. _____

SOURCE OF INJURY DATA**OFFICIAL**

(1) Autopsy records with or without hospital medical records
 (2) Hospital medical records other than emergency room (e.g., discharge summary)
 (3) Emergency room records only (including associated X-rays or other lab reports)
 (4) Private physician, walk-in or emergency clinic

UNOFFICIAL

(5) Lay coroner report
 (6) E.M.S. personnel
 (7) Interviewee
 (8) Other source (specify):
 (9) Police

INJURY SOURCE**FRONT**

(01) Windshield
 (02) Mirror
 (03) Sunvisor
 (04) Steering wheel rim
 (05) Steering wheel hub/spoke
 (06) Steering wheel (combination of codes 04 and 05)
 (07) Steering column, transmission selector lever, other attachment
 (08) Add on equipment (e.g., CB, tape deck, air conditioner)
 (09) Left instrument panel and below
 (10) Center instrument panel and below
 (11) Right instrument panel and below
 (12) Glove compartment door
 (13) Knee bolster
 (14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror, or steering assembly (driver side only)
 (15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)
 (16) Other front object (specify):

LEFT SIDE

(20) Left side interior surface, excluding hardware or armrests
 (21) Left side hardware or armrest
 (22) Left A pillar
 (23) Left B pillar
 (24) Other left pillar (specify):

(25) Left side window glass or frame

(26) Left side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail.
 (27) Other left side object (specify):

(28) Left side window sill

RIGHT SIDE

(30) Right side interior surface, excluding hardware or armrests
 (31) Right side hardware or armrest
 (32) Right A pillar
 (33) Right B pillar
 (34) Other right pillar (specify):

(35) Right side window glass or frame
 (36) Right side window glass including one or more of the following: frame, window sill, A pillar, B pillar, or roof side rail.

(37) Other right side object (specify):
 (38) Right side window sill

INTERIOR

(40) Seat, back support
 (41) Belt restraint webbing/buckle
 (42) Belt restraint B-pillar attachment point
 (43) Other restraint system component (specify):
 (44) Head restraint system
 (45) Air bag
 (46) Other occupants (specify):

(47) Interior loose objects
 (48) Child safety seat (specify):

(49) Other interior object (specify):

ROOF

(50) Front header
 (51) Rear header
 (52) Roof left side rail
 (53) Roof right side rail
 (54) Roof or convertible top

FLOOR

(56) Floor (including toe pan)
 (57) Floor or console mounted transmission lever, including console
 (58) Parking brake handle
 (59) Foot controls including parking brake

REAR

(60) Backlight (rear window)

(61) Backlight storage rack, door, etc.
 (62) Other rear object (specify):

EXTERIOR of OCCUPANT'S VEHICLE

(65) Hood
 (66) Outside hardware (e.g., outside mirror, antenna)
 (67) Other exterior surface or tires (specify):
 (68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

(70) Front bumper
 (71) Hood edge
 (72) Other front of vehicle (specify):

(73) Hood
 (74) Hood ornament
 (75) Windshield, roof rail, A-pillar
 (76) Side surface
 (77) Side mirrors
 (78) Other side protrusions (specify):

(79) Rear surface

(80) Undercarriage

(81) Tires and wheels

(82) Other exterior of other motor vehicle (specify):

(83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

(84) Ground
 (85) Other vehicle or object (specify):

(86) Unknown vehicle or object

NONCONTACT INJURY

(90) Fire in vehicle
 (91) Flying glass
 (92) Other noncontact injury source (specify):
 (93) Air bag exhaust gases
 (97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

(1) Certain
 (2) Probable
 (3) Possible
 (9) Unknown

DIRECT/INDIRECT INJURY

(1) Direct contact injury
 (2) Indirect contact injury
 (3) Noncontact injury
 (7) Injured, unknown source

OCCUPANT INJURY CLASSIFICATION**O.I.C. Body Region**

(M) Abdomen
 (Q) Ankle—foot
 (A) Arm (upper)
 (B) Back-thoracolumbar spine
 (C) Chest
 (E) Elbow
 (F) Face
 (R) Forearm
 (H) Head—skull
 (U) Injured, unknown region
 (K) Knee
 (L) Leg (lower)
 (Y) Lower limb(s) (whole or unknown part)
 (N) Neck—cervical spine
 (P) Pelvic—hip
 (S) Shoulder
 (T) Thigh
 (X) Upper limb(s) (whole or unknown part)
 (O) Whole body
 (W) Wrist—hand

Aspect of Injury

(A) Anterior—front
 (B) Bilateral (rib fracture only)
 (C) Central
 (I) Inferior—lower
 (U) Injured, unknown aspect
 (L) Left
 (P) Posterior—back
 (R) Right
 (S) Superior—upper
 (W) Whole region

Lesion

(A) Abrasion
 (M) Amputation
 (V) Avulsion
 (B) Burn
 (K) Concussion
 (C) Contusion
 (N) Crush
 (G) Detachment, separation
 (D) Dislocation

(F) Fracture

(Z) Fracture and dislocation

(U) Injured, unknown lesion

(L) Laceration

(O) Other

(P) Perforation, puncture

(R) Rupture

(S) Sprain

(T) Strain

(E) Total severance, transection

System/Organ

(W) All systems in region

(A) Arteries—veins

(B) Brain

(D) Digestive

(E) Ears

(H) Heart

(U) Injured, unknown system

(I) Integumentary

(J) Joints

(K) Kidneys

(L) Liver

(M) Muscles

(N) Nervous system

(P) Pulmonary—lungs

(R) Respiratory

(S) Skeletal

(C) Spinal cord

(Q) Spleen

(T) Thyroid, other endocrine gland

(V) Vertebrae

Abbreviated Injury Scale

(1) Minor injury

(2) Moderate injury

(3) Serious injury

(4) Severe injury

(5) Critical injury

(6) Maximum (untreatable)

(7) Injured, unknown severity

OFFICIAL INJURY DATA – SOFT TISSUE INJURIES

Indicate the Location, Lesion, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

